RAILROAD MAGAZINE

JULY, 1966 — 50¢

Colorful circus train steams into Milwaukee each year from Baraboo, Wisconsin, home of Circus World Museum. Photo shows Burlington's 4960 wheeling the caravan through Waukesha last year. The 1966 train will leave Baraboo at 6:15 a.m. June 30th, reach Milwaukee about 1 p.m.

SP BUILT 248 ENGINES

by Richard M. Murdock

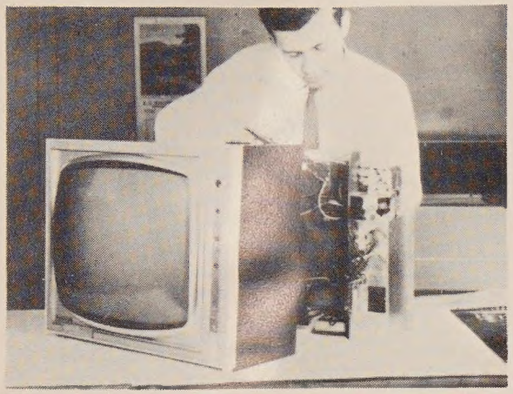
LOCOMOTIVE ROSTER

Milwaukee Road

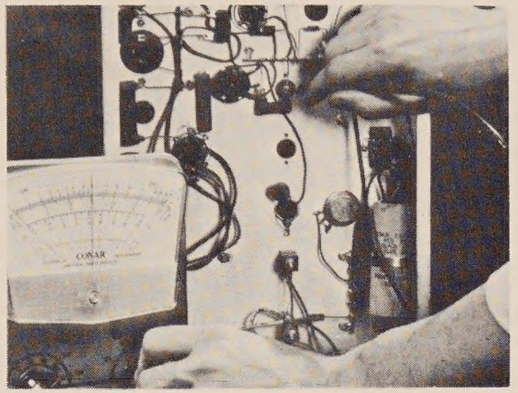
DRIVING WHEELS

By R. T. ROBERTS

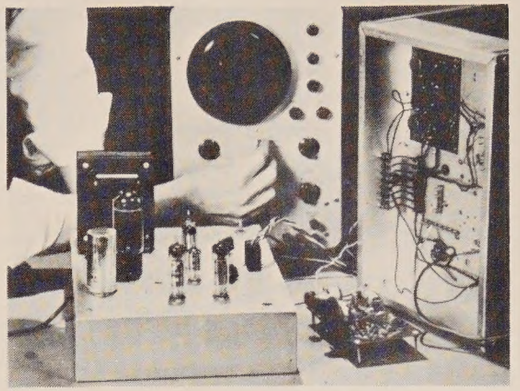
Learning at Home is Fast and Easy with Kits Like These



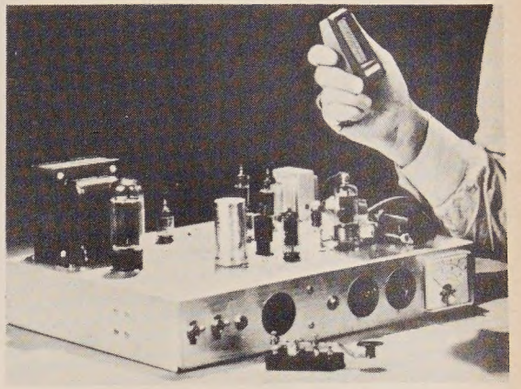
Build this TV Set—even if you've never built a kit before. NRI sends everything.



Build this precision Voltmeter. Use it for years in experimental and repair work.



Build actual Computer Circuits. You can use them to solve simple math problems.



Build your own Radio Transmitter. Go on air if you wish. Complies with FCC rules.

Discover the Excitement of Learning Radio-TV or Electronics the NRI Way

FREE SEND FOR THIS NEW NRI CATALOG

CUT OUT AND MAIL POSTAGE-FREE CARD

Mail the postage-free card today. The NRI catalog you get will open your eyes to the wide variety of success opportunities in the wonderful world of Electronics—America's fastest growing industry. You'll also get complete information about NRI's simplified, perfected train-at-home techniques, and how you can "cash in" on the fast growing demand for men with Radio-TV, Electronics training.

MAKE $3 TO $5 AN HOUR EXTRA IN SPARE TIME STARTING SOON AFTER YOU ENROLL

NRI shows you how to make extra money in spare time while training, fixing Radio and Television sets for friends and neighbors. On completion of training, you can be your own boss in your own full time TV-Radio Service business. Or you can be a part of the automation "revolution" in business and industry. Or you may want to get into the fascinating fields of broadcasting-communications. Your choice may be to take part in the space race, working on missiles, rockets, satellites or other government programs. Or, an understanding of computers may soon be necessary in your work.

CHOOSE FROM 10 NRI INSTRUCTION PLANS

Whatever your interest, whatever your age, whatever your education, NRI has a training plan that helps you realize your ambition. Catalog gives details about exclusive Achievement Kit NRI sends the day you enroll to get you off to a fast start. Read about custom designed electronic equipment NRI gives you at no extra cost. All equipment is yours to keep. Things you build, tests you make, bring to life what you read in NRI's "bite size" texts. Don't delay. Mail postage-free card now. No obligation. No salesman will call. NATIONAL RADIO INSTITUTE, Electronics Division, Washington, D.C. 20016. Accredited member, National Home Study Council.

NRI HAS TRAINED THOUSANDS FOR SUCCESS

F. W. COX, Hollywood, Calif., averaged $150 a month fixing sets in spare time while training, now has his own full-time business.

R. L. WOOD, Fargo, N.D., got his FCC License as part of his NRI training and is Master Control Engineer with KXIB-TV.

A. R. TOWNSEND, Topeka, Kan., is a missile officer at Atlas ICBM site; fixes radio and TV sets spare time.

Available Under NEW GI BILL

If you served since January 31, 1955, or are in service, check GI line in postage-free card.

FROM

NAME_____

ADDRESS_____

CITY_____ STATE_____ ZIP CODE_____

☐ Check for facts on new GI Bill.

232-066

FIRST CLASS
PERMIT
NO. 20-R
Washington, D.C.

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

NATIONAL RADIO INSTITUTE
3939 Wisconsin Avenue
Washington, D.C. 20016

253 ways to win yourself a RAISE IN PAY

Dozens of new careers are open to you with I.C.S. training. Oldest, largest correspondence institution. 7,500,000 students since 1890. Learn facts, theories, practical applications. Instructors guide you, answer your questions. Illustrated texts, written by authorities, yours to keep. Famed I.C.S. diploma to graduates. Convenient payment plan. Take charge of your future now. Send coupon for three FREE booklets.

ACCOUNTING
Accounting for Business Programmers
Accounting (Canadian)
Auditing
Business Law
Cost Accounting
C.P.A. Review
Estate & Trust Accounting
Executive Accounting
Federal Tax
General Accounting
Industrial Accounting
Junior Accounting
Legal Accounting
Office Accounting
Personal Income Tax & Social Security
Practical Accounting
Public Accounting
Small Business Accounting
Starting & Managing a Small Bookkeeping Service

ARCHITECTURE AND BUILDING
Architectural Drawing & Designing
Architecture
Building Contractor
Building Estimator
Building Inspector
Building Maintenance
Carpenter-Builder
Carpentry & Millwork
House Planning, Int. Design
Mason
Painting Contractor
Reading Arch. Blueprints
Review in Arch. Design & Practice
Review of Mech. Systems in Buildings

ART
Amateur Artist
Commercial Art
Commercial Cartooning
Interior Decorating
Show Card & Sign Production
Show Card Writing
Sign Painting & Designing
Sketching & Painting
Oil Painting for Pleasure

AUTOMOTIVE
Automatic Transmission Specialist
Automobile Body Rebuilding & Refinishing
Automobile Electrical Technician
Automobile Engine Tune-Up
Automobile Technician
Automotive Mechanic
Diesel-Gas Motor Vehicle Engines

BUSINESS
Advertising
Basic Inventory Control
Business Administration
Business Management & Marketing
Business Management & Production
Canadian Business Courses
COBOL Programming
Condensed Business Practice
Direct Mail & Mail Order Advertising
Industrial Psychology
Magazine & Newspaper Advertising
Managing a Small Store
Marketing
Marketing Research
Modern Executive Mgt.
Office Automation
Office Management
Programming for Digital Computers
Programming the IBM 1401 Computer
Purchasing Agent
Retail Business Management
Retail & Local Advertising
Retail Merchandising
Retail Selling
Systems and Procedures Analysis

CHEMICAL
Analytical Chemistry
Chemical Engineering
Chemical Engineering Unit Operations
Chemical Laboratory Tech.
Chemical Process Operator
Elements of Nuclear Energy
General Chemistry
Instrumental Laboratory Analysis

CIVIL ENGINEERING
Civil Engineering
Construction Engineering
Highway Engineering
Principles of Surveying
Reading Highway Blueprints
Sanitary Engineering
Sewage Plant Operator
Structural Engineering
Surveying and Mapping
Water Works Operator

DRAFTING
Architectural Drafting
Design Drafting
Drafting Technology
Electrical Drafting
Electrical Engineering Drafting
Electronic Drafting
Intro. Mechanical Drafting
Mechanical Drafting
Pressure-Vessel and Tank Print Reading
Sheet Metal Layout for Air Conditioning
Structural Drafting

ELECTRICAL
Electric Motor Repairman
Electrical Appliance Servicing
Electrical Contractor
Electrical Engineering (Power option or Electronic option)
Electrical Engineering Tech.
Electrical Instrument Tech.
Industrial Electrical Tech.
Power Line Design and Construction
Power Plant Operator (Hydro or Steam Option)
Practical Electrician
Practical Lineman
Reading Electrical Blueprints

ENGINEERING (Professional)
Chemical — Civil
Electrical — Mechanical
Industrial Management for Engineers

ENGLISH AND WRITING
Better Business Writing
Free Lance Writing
Introductory Technical Writing
Modern Letter Writing
Practical English
Short Story Writing

HIGH SCHOOL
High School Business
High School (Canadian)
High School College Prep. (Arts)
High School College Prep. (Engineering & Science)
High School General
High School Mathematics
High School Secretarial
High School Vocational

LANGUAGES (Edited by Berlitz)
French — German
Italian — Spanish

LEADERSHIP
Basic Supervision
Industrial Foremanship
Industrial Supervision
Personality Development
Personnel-Labor Relations

MATHEMATICS
Advanced Mathematics
Mathematics and Mechanics for Engineering
Mathematics and Physics for Engineering
Math & Physics for Technic'ns
Modern Elementary Statistics

MECHANICAL
Aircraft & Power Plant Mechanic
Industrial Engineering
Industrial Instrumentation
Machine Design
Mechanical Engineering
Quality Control
Safety Engineering Tech'l'gy
Tool Design
Value Analysis

PETROLEUM
Natural Gas Production & Transmission
Oil Field Technology
Petroleum Production
Petroleum Production Eng'r'g
Petroleum Refinery Operator
Pipeline Engineering

PLASTICS
Plastics Technician

PLUMBING, HEATING, AIR CONDITIONING
Air Conditioning
Air Conditioning Maintenance
Domestic Heating with Oil & Gas
Domestic Refrigeration
Heating
Heating & Air Conditioning with Drawing
Industrial Air Conditioning
Industrial Heating
Plumbing
Plumbing & Heating
Practical Plumbing
Refrigeration
Refrigeration & Air Conditioning
Steam Fitting

PULP AND PAPER
Paper Machine Operator
Paper Making
Pulp Making
Pulp & Paper Engineering
Pulp & Paper Making

SALESMANSHIP
Creative Salesmanship
Real Estate Salesmanship
Sales Management
Salesmanship

SECRETARIAL
Clerk-Typist
Commercial
Legal Secretary
Medical Secretary
Professional Secretary
Shorthand
Stenographic
Typewriting

SHOP PRACTICE
Drill Operator
Foundry Practice
Industrial Metallurgy
Lathe Operator
Machine Shop Inspection
Machine Shop Practice
Machine Shop Practice & Toolmaking
Metallurgical Engineering Technology
Milling Machine Operator
Multicraft Maintenance Mechanic
Practical Millwrighting
Reading Shop Prints
Rigging
Tool Engineering Technology
Tool Grinder
Toolmaking
Turret Lathe Operator
Welding Engineering Technology

STEAM AND DIESEL POWER
Boiler Inspector
Industrial Building Engineer
Power Plant Engineering
Stationary Diesel Engines
Stationary Fireman
Stationary Steam Engineering

TEXTILES
Carding
Carding and Spinning
Dyeing & Finishing
Loom Fixing
Spinning
Textile Designing
Textile Technology
Textile Mill Supervisor
Warping and Weaving

TRAFFIC
Motor Traffic Management
Railway Rate Clerk
Traffic Management

TV-RADIO-ELECTRONICS
Communications Technology
Electronic Fundamentals
Electronic Fundamentals (Programmed)
Electronic Fundamentals with Electronic Equipment Training
Electronic Instrumentation & Servo Fundamentals
Electronic Principles for Automation
Electronics and Applied Calculus
Electronics Technician
First Class Radiotelephone License
Fundamentals of Electronic Computers
General Electronics
General Electronics with Electronic Equip. Trng.
Hi-Fi Stereo and Sound Systems Servicing
Industrial Electronics
Industrial Electronics Engineering
Industrial Electronics Engineering Technician
Practical Radio-TV Engineer'g
Practical Telephony
Principles of Radio-Electronic Telemetry
Principles of Semiconductor-Transistor Circuits
Radio Servicing with Equipment Training
Radio & TV Servicing with Equipment Training
Second Class Radiotelephone License
Sound Systems Specialist
Telephony, Electronics and Radio Communications
TV Receiver Servicing
TV Technician

Clip coupon—and take your first big step to real success! I.C.S., Scranton, Penna. 18515

Accredited Member, National Home Study Council

INTERNATIONAL CORRESPONDENCE SCHOOLS ICS

Box 1924, Scranton, Penna. 18515 (In Hawaii: P. O. Box 418, Honolulu. In Canada: I. C. S. Canadian, Ltd. In other countries: I. C. S. World, Ltd.)
Without cost or obligation, rush me "HOW to SUCCEED," the opportunity booklet about the field I have indicated below, and a sample lesson.
New! Special Package for Women! ***Special Training Programs for Industry*** ***Convenient Payment Plan***

Name of the course in which you are interested_____

Name_____ (Please indicate Mr. Miss. Mrs.) Age_____ Address_____

City_____ State_____ Zip Code_____ Working Hours_____ A.M. to_____ P.M.

Occupation_____ Employed by_____

☐ **I am a member of U.S. Armed Forces. Send me information on special low rates.**

RAILROAD MAGAZINE

Adventurous Railroading and Rail Hobbies—Founded 1906

VOL. 79, NO. 3 JULY, 1966 50 CENTS

FREEMAN HUBBARD
Editor

SY REICH
Technical Editor

ARTHUR T. KNOWLES
Assistant Editor

BARBARA KREIMER
Information Booth

STEVE MAGUIRE
Transit Topics

H. L. KELSO
Contributing Editor

ILLUSTRATED FEATURES

Photographs of the Month 13
SP Built 248 Engines ..... Richard M. Murdock 17
Interesting Railfans No. 43: Hank Johnston 27
Driving Wheels ..... Rockwood T. Roberts 34
Locomotives of Milwaukee Road ..... Sy Reich 42

FICTION

The Age Limit ..... Frank L. Packard 58

SHORT HAULS

Along the Iron Pike *(pictorial)* ..... Joe Easley 48
Roster of the Grand Trunk Pacific 53
Canadian Northern Locomotive Roster 57

DEPARTMENTS

The Mail Car 6
Transit Topics 31
Information Booth 37
Coming Events 45
Books of the Rails 46
The Hobby Club 49
Personalities 64
The Switch List 64

You don't see many of these any more: Southern Railway's 6910, a 2-8-2 type, wheeling a trainload of railfans and trailing plumes of smoke and steam not far from Cleveland, Tennessee, last October 9th.

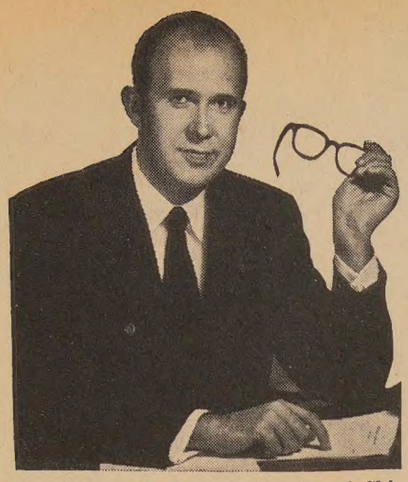
Photo by H. Reid, co-author of book "Rails Through Dixie"

HENRY STEEGER, *Publisher*
THOMAS HARRAGAN, *Associate Publisher*
EARL UMPENHOUR, *Production Manager*
IRA MOSHIER, *Newsstand Sales Manager*
JOSEPH MUCCIGROSSO, *Subscription Manager*

ADV. REPRESENTATIVES
Robert Stark Associates, 145 East 52nd St., New York, N.Y.
Harley L. Ward, Inc., 360 North Michigan Ave., Chicago, Ill.
Townsend Millsap & Co., 110 Sutter St., San Francisco, Calif.
Townsend Millsap & Co., 3959 West 6th St., Los Angeles 5, Calif.

RAILROAD MAGAZINE is published monthly by Popular Publications, Inc. at 205 E. 42nd Street, New York, N.Y. 10017. Henry Steeger, President. John J. McVarish, Treasurer. Second-class postage paid at New York, N.Y., and at additional mailing offices. Magazine is copyright © 1966, by Popular Publications, Inc. This issue is published simultaneously in the Dominion of Canada. Copyright under Universal, International and Pan-American Copyright Conventions. All rights reserved, including the right of reproduction, in whole or in part, in any form. Single copy, 50c. Subscription for U.S.A. and its possessions, $5.00 for one year; $6.00 per year in Canada and all other countries. Title registered in the U. S. Patent Office. Address all correspondence to Railroad Magazine, 205 East 42nd Street, New York, N.Y. 10017. When submitting manuscripts, enclose stamped, self-addressed envelope for their return, if found unacceptable. Please query the editor before submitting feature articles. Care will be exercised in the handling of unsolicited manuscripts, but no responsibility is assumed for their return. Printed in U.S.A.

CHANGE OF ADDRESS: POSTMASTER—Please mail Form 3579 notices to: RAILROAD, Portland Place, Boulder, Colorado



Don Bolander, M.A., University of Chicago; B.S., Northwestern University; Director of Career Institute; authority on adult education.

Shamed by your English?

You can soon speak and write like a college graduate if you let me help you for 15 minutes a day.

LET'S BE FRANK

If you've ever been shamed by a mistake in English, maybe I can save you from years of disappointment.

You see, none of us will ever go any farther than our ability to speak and write will let us go.

I have met countless numbers of intelligent men and women who are being held back in their jobs and social lives—often without knowing it—because they couldn't express themselves fully and easily.

What About You?

Could *you* get ahead faster with a command of good English? Just ask yourself these questions:

Even with all your ability and ambition, how long has it been since you had a promotion?

Even with all you have to offer, when people get together at work or at parties, are you the one they listen to?

Be Honest with Yourself

If people are not impressed by the way you speak and write—and, if you're honest enough with yourself to admit it—you have already taken the first big step to success.

The Next Step Is Easy

You can master good English *without going back to school.* Over the years I have helped thousands of men and women to stop making embarrassing mistakes in English, increase their vocabularies, and become interesting conversationalists—*right in their own homes.*

Here's What to Do

I can help you, too, if you will give 15 minutes a day to the Career Institute Method of mastering good English. My answers to the following questions will show you how quickly and easily you can stop being ashamed of your English, and *do* something about getting ahead.

Question *What is so important about my ability to speak and write?*

Answer People judge you by the way you speak and write. Good English is absolutely necessary for making a good impression and getting ahead in business and social life. You can't express your ideas fully or reveal your true personality without a sure command of good English.

Question *What does a "command of good English" mean?*

Answer It means you can express yourself clearly and easily without fear of embarrassment or making mistakes. It means you can write well, carry on a good conversation—also read rapidly and remember what you read.

Question *Are there other advantages to be gained by acquiring a command of good English?*

Answer Yes! Words are actually "tools of thought." The more you learn about words and how to use them to form and express your ideas, the better your *thinking* becomes. For this reason a command of good English often pays off in unexpected ways.

Question *Wouldn't I have to go back to school for a command of good English?*

Answer No, not any more. You can gain the ability to speak and write like a college graduate right in your own home—in only a few minutes each day.

Question *Is this something new?*

Answer Career Institute of Chicago has been helping people for many years. The unique Career Institute Method quickly shows you how to stop making embarrassing mistakes, gain a colorful vocabulary, write clearly and well, and discover the "secrets" of interesting conversation.

Question *How do I know it works?*

Answer There are thousands of letters in my files, testimonials from people in all walks of life who have used the proved Career Institute Method to achieve amazing results. If you send in the coupon below, I will share some of these letters with you.

Question *How long will it take me to learn to speak and write like a college graduate, using your method?*

Answer In some cases people take only a few weeks to gain a command of good English. Others take longer. It is up to you to set your own pace. In as little time as 15 minutes a day, you will see quick results.

Question *How can I find out more about the Career Institute Method?*

Answer I will gladly mail you a free 32-page booklet which explains the new easy-to-follow Career Institute Method and tells how you can master good English quickly and enjoyably at home. Send coupon, card, or letter today to Career Institute, 555 E. Lange St., Mundelein, Ill. 60060. No salesman will call.

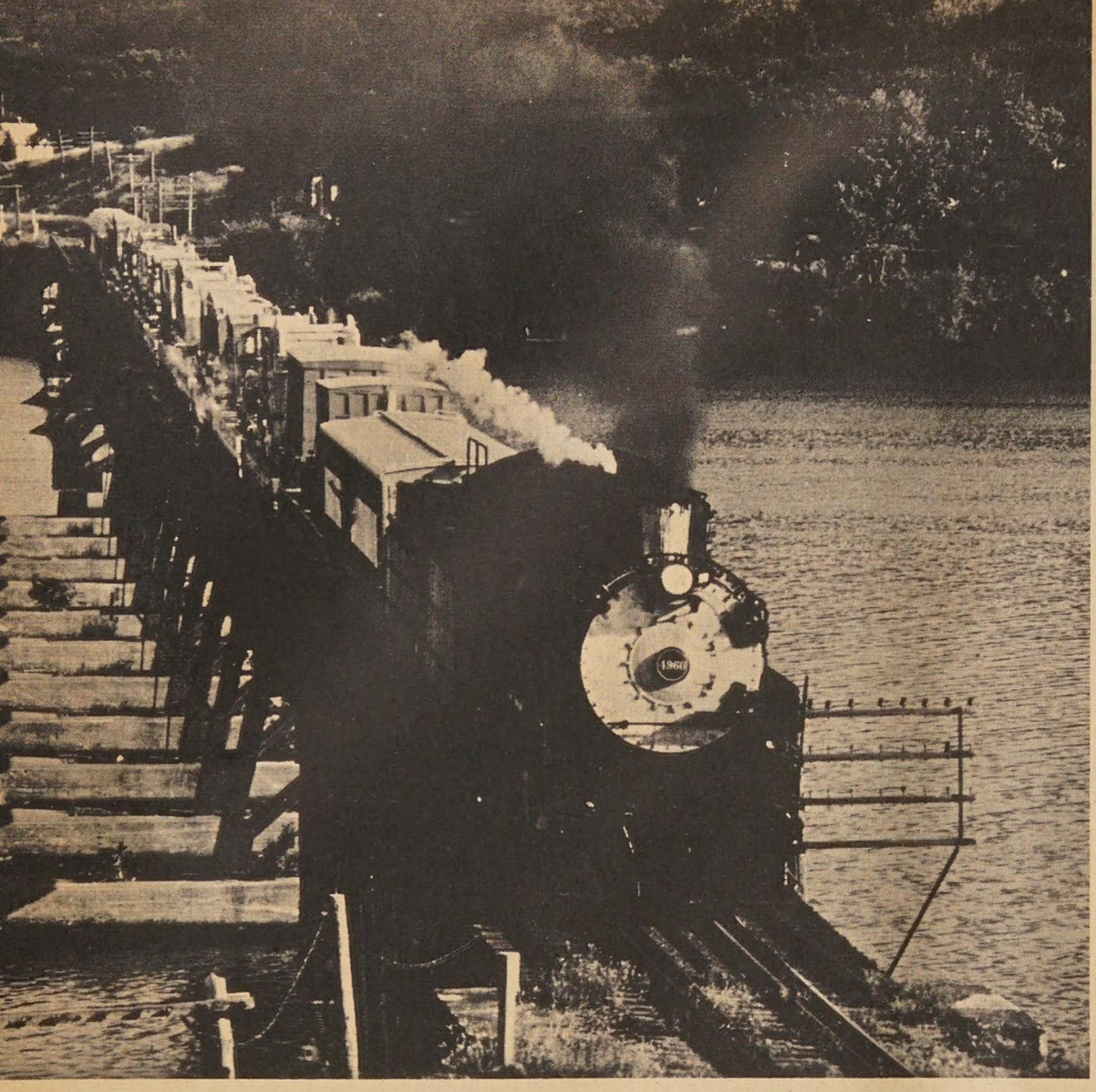
DON BOLANDER, Career Institute, Dept. 3F, 555 E. Lange St., Mundelein, Ill. 60060
Please mail to me, without obligation, a free copy of your 32-page booklet,
HOW TO GAIN A COMMAND OF GOOD ENGLISH.

NAME_____

STREET_____

CITY_____ STATE_____ ZIP CODE_____

If 18 or under, check here for special booklet. ☐



THE MAIL CAR

Where the editors and readers meet

Circus train powered by CB&Q 4960 crossing the Wisconsin River at Merrimac, Wisc., in 1946.

This photo and front-cover shot from Jos. Schlitz Brewing Co.

COVER photo shows a gay sight that used to be common, long ago, when all big circuses in the United States and many small ones traveled by rail. Some of the Big Top's departed glory will be revived June 29th when a 20-car train is loaded at Baraboo, Wisc., home of the Circus World Museum, under auspices of that museum and the Jos. Schlitz Brewing Co. The latter financed the restoration of the railroad circus cars and brightly-painted wagons, the train's operation, hundreds of costumes, etc. Flatcars which will carry the wagons came from the defunct World of Mirth show, which in turn had bought some from Ringling Bros. and Barnum & Bailey.

On June 30th the colorful caravan will roll over C&NW tracks into Milwaukee — with fine opportunities en route for color photography! In Milwaukee it will be unloaded and there will be free entertainment culminating in a great street parade July 4th. Burlington's last active steamer, No. 4960, will pull the train eastbound, and on July 5th a North Western diesel will wheel it back to Baraboo. The Burlington will retire its 4960 in July and, we are told, give her to the Circus World Museum.

John W. Wheeler, who was executive assistant to the CB&Q president until he retired in 1963, said that donating the engine to a museum would be a big mistake. Old 4960 should be left in service to show Americans how a real steam locomotive looks and sounds.

"People want to see her and hear the whistle blow," he said, "and pay for a ride."

But the CB&Q management, although making a lot of money on its freight business, says the road couldn't spare the men needed to keep her in repair. (List of her last runs on page 45.) ●

WHEN Ringling-B&B was in its proud heyday it owned a 100-car train (but no locomotive) which was operated in four sections. One autumn night in 1906 a section was pulled by a boomer engineer, Ed Edmonds, now retired, 7410 Victoria Ave., Yucca Valley, Calif., 92284, on a big road that ran through Idaho (he won't mention its name).

"At that time," he recalls, "our telegraph operators were on strike and the road was in a mess. The circus train was coming over two divisions that night in four sections. Handicapped as he was, the dispatcher did the best he could by running all four as sections of No. 3. All were made up at about the same time.

"I was called about 10 p.m. to pull the fourth section. Well, the third section came and went, but I had to wait two and a half hours for the fourth to show up. There was a dense white fog. That didn't bother me, for I knew every curve on the division. Since the third section had gone, there was no following train, no order boards or block signals to watch out for, nothing for me to do but take water and go.

"The road was all mine and we made

Will you invest an hour a day to take home up to $50 a week?

This spare time shoe business can make big money for you... We furnish everything FREE!

It's just like receiving a "Bonus Check" in your pay envelope every week . . . just for showing folks wonderful Mason Shoes. Many a man sells 2, 3, 4 or 6 pairs of Mason shoes in his spare time and makes himself from $5 to $20 or more extra for 2 or 3 hours of his time. Here's how: At our expense, the 60-year-old Mason Shoe Manufacturing Company will set you up in a profitable "shoe store business." No previous experience, no investment!

Here's Why You'll Make Money!

It's easy because you show nationally advertised footwear that EVERYBODY needs and wants. Our huge warehouse stock of 300,000 pairs of dress, work, sport shoes for men and women gives you a bigger selection than any store in town. You can fit everybody because sizes run all the way from 2½ to 16, and widths AAA to EEEE.

Don't Invest a Cent!
We Give You Sales Equipment Absolutely FREE

You show famous Mason Air-Cushion shoes—good-looking footwear in the latest styles—a line that's far beyond the reach of competition. That's why *everybody* is your prospect. Fill out and mail the coupon below. We'll rush you our free "Starting Business Outfit"! Send no money now or later. Act today!

The Mason Shoe Mfg. Co., Dept. G-59, Chippewa Falls, Wisc.

RUSH FOR FREE OUTFIT!

The Mason Shoe Mfg. Co., Dept. G-59
Chippewa Falls, Wisconsin

Please rush FREE and postpaid everything I need to start making money my very first spare hour in my own "Shoe Store Business" I can run from my home.

Name.....
Please print

Address.....

City.....State.....Zip Code.....
(If known)

good time, about 40 mph, which was the limit for circus trains. At length on a slight right curve 17 miles east of the terminal we suddenly came into a clear space. It was now morning. Fog had lifted and the sun shone brightly. I was stunned to see, not more than a mile ahead of me, the third section stalled; so I quickly shut off steam, applied the emergency brakes, and opened the sand valve.

"I wasn't much scared, for I knew that the circus people kept their cars and brakes in good condition, but my heart rose to my mouth when we finally stopped—a car-length from the stalled train! Luckily, there was no damage; the incident was never reported. Those were the good old days when you worked 50 to 60 hours at a time. All you thought of was getting to bed for a few hours' sleep before being called again." ●

DICK MURDOCK, author of our July lead feature, is a Southern Pacific engineman living at 346 Valley View Drive, Pleasant Hill, Calif. Born in 1917, he hired out to the SP at age 24. Shortly afterward, while firing a yard goat at Martinez, Calif., he found a cute little trick named Dorothy clerking for an oil company, fell for her like a runaway Mallet on a mountain grade, and married the girl in 1945. For the past 14 years Dick has been contributing now and then to *Railroad Magazine*. His most popular article, "Paul Bunyan's Toothpicks" (June '59), covered the West Side Lumber Co. steam railroad. ●

Richard M. Murdock

THREE CYLINDERS. John T. Maloney of Philadelphia recalled the time in the 1930's when he was general foreman of the Lehigh Valley's enginehouse at Sayre, Pa., and bought 3-cylinder jobs from Alco.

"These locomotives," he told Bill Pennington, author of the main feature in our June issue, "hauled milk trains of 30 to 40 cars from Sayre to Easton, Pa. Because of the center main-rod bearing heating up and scoring the crank nearing on the number 2 axle, the engines' maintenance cost ran high. Excessive repair work had to be done on the center main-rod crank shaft. Often we set up an electric crank trueing machine in the pit under the locomotive to true up the crank bearing and then renewed the bearings to a proper fit to the crank shaft.

"This bearing was lubricated with hard rod grease, which the oil companies often changed to keep the center main-rod from overheating — but without success. Other moving parts of the 3-cylinder arrangements were lubricated by force-feed, such as the crosshead guides and wrist pins.

"The front pair of wheels had an offset in the center to clear the center-cylinder main rod. We attributed the difficulty we had with the back end of the center main rod to the fact of its being too short and developing a much higher horsepower than the two outside main rods which did not cause such trouble. Engineers operating the 3-cylinder locomotives were not held responsible for the difficulty, as all engines were equipped with speed recorders, and the road foreman spent much time riding them. Their work reports were not unusual. The only items listed were short delays on trips because the center main rod had run hot and it was necessary to stop and fill the grease cups.

"Those engines did not succeed in speeding up the milk trains nor did they help much in the slower freight service. So they were rebuilt to 2-cylinder jobs. An Alco representative was on duty constantly at the Sayre enginehouse, trying to solve the problem we faced during the short time we had those engines. Mileage was very low and cost very high as compared with our 2-cylinder jobs. The 3-cylinder engines were such a problem to the Lehigh Valley that ICC inspectors worked them in conjunction with our mechanical engineers, but the center main rod kept developing excessive heat and pounding the bearings out of them."

John Maloney wrote this letter the day after his 76th birthday. A few hours later he died suddenly. ●

CHAIN DOORS on fireboxes were thoroughly disliked by steam locomotive firemen long ago. Frank E. Grout, 37 Concord St., Ashland, Mass. 01721, wrote in *Locomotive Engineer:*

The chain door was always getting in the way. By the time you got your shovel of coal, the door would be shut. Maybe you can guess what happened then. At another time you'd have a clinker balanced on a single pronged hook and then get tangled up with that chain and lose the clinker back into the firebox. That time you were hot under the collar.

Then again you would get mad, grab that chain, give it a hard yank, and down it would come from up overhead and wind around your neck, giving you a hit on the side of your head, knocking your cap off. If the firebox door happened to be open, good-bye cap. Other times it might become disconnected from the door latch when the train was on a hard grade and the hogger had his Johnson bar down in the corner.

All this happened to me in 1903 when I started firing on the New Haven Railroad, from which I retired in 1959. I'll never forget those lovely old chain doors. The way I used to talk to them would not look well in print. ●

BRIEFLY SPEAKING. New York Central's passenger officials are becoming more health-conscious. Besides reducing the percentage of smoking cars on their trains, they now serve fresh fruit as an after-dinner course on the *20th Century Limited.*

Illinois Central wants to buy the Mississippi Central for $2 million, subject to Interstate Commerce Commission approval. The MC links Natchez with Hattiesburg, Miss., 149 miles. Its main freight business is in wood products.

Boston & Maine commuter service, subsidized by the Massachusetts Bay Transportation Authority, is keeping 23,000 commuters off the highway daily. That means 10,000 less vehicles trying to crowd into the already congested streets of Boston. And patronage on B&M commuter lines is on the rise.

The main difference between the amateurs and professionals who write magazine articles, especially in the railroad field, is that amateurs merely *state* the facts while pros also *interpret* the facts.

Jersey Central is currently leasing Baldwin 1600-hp road switchers 536, 540, 541, and 544-546 from the Reading, and EMD F-7's 4492 and 4509 from B&O, reports Jack Emerick, CNJ assistant industrial engineer at Jersey City, N.J. The Reading power is used primarily in the Jersey City-Eport Terminal area, while the B&O units haul mainline freight between J.C. and Allentown. "E'port" is a commonly used railroaders' term for Elizabethport.

Between 1947 and 1963, more than half of the daily passenger trains serving the New York-Washington-Baltimore-Philadelphia-Harrisburg area were eliminated. The Baltimore & Ohio, the Pennsy, and the Reading dropped 271 of their 470 daily passenger trains in the 16-year period. These figures—hardly surprising—turn up in a recently released Commerce Department study. We knew they were high but didn't know they were *that* high.

The 6-mile automatic railway at Carol Mine in Labrador, Canada, which had been using diesel locomotives since it began operation in 1962, has recently switched over to electric locomotives because of the plentiful supply of electric power and better operation in the cold. It operates 24 hours every day.

Long Island Rail Road owns 335 umbrellas, which commuters never claimed at the road's lost and found office. These are placed on racks at the Jamaica station for passengers to borrow, free of charge, for use in sudden storms; they must be returned.

When his car stalled on the D&RGW near Monument, Colo., Bennie Crawford said he was too flustered to notice it happened in the middle of some railroad tracks. He left to get help. When he returned it was no longer needed. The car was demolished by a freight train. ●

MOST embarrassing moment in the life of Dora Crawford, 426 Albert St., Shreveport, La., occurred when she was working as an Illinois Central yard-office clerk in Shreveport. Dora has a brother Clyde, nicknamed "Baby," in IC train service, who occasionally called her on the office telephone.

Dora Crawford

"One day," she recalls, "the telephone rang and a clerk called out that my brother was on the phone. Lifting the receiver, I said, 'Hello, Baby.' A strange voice yelled, 'Who do you think you're talking to?' Well, I almost died of fright. I had picked up the line on which the president of the Illinois Central Railroad was talking! He sat in an adjoining office and I could see an amazed look on his face. For the next few days I expected to be fired, but nothing else happened. I kept the job six years."

She is a blue-eyed redhead. Railroaders in her family tree include an uncle, a greatuncle, and a cousin. Dora and her brother are accomplished musicians. They helped to organize a band, "The IC Mainliners," and both play in it. She received a coveted award as "Sorority Woman of the Year" at the latest national convention of Delta Rho Delta. ●

ANOTHER blow has been struck at railroad passenger business by the U.S. Post Office finally removing all mail from Chesapeake & Ohio trains 46 and 47, which run between Ashland, Ky., Columbus, Toledo, and Detroit.

"We were hopeful this wouldn't happen," says Paul H. Reistrup, C&O-B&O director of passenger services. "The Post Office notified us last November that it would take off the mail January 3, after the holidays were over and they no longer needed us. But so many protests were lodged by Congressmen and local community leaders that the Post Office extended the deadline 60 days.

"It's ironic that they ask us to continue carrying the mail when they need us, but then later cut the ground out from under our service. These trains need the mail revenues since they are already in the red, and the loss of the Government contract means an additional deficit of $162,000 a year."

He also notes that the truck schedule for mail delivery between Detroit and

INVEST NOW!

1 1/4 ACRES in MEADOW VALLEY RANCHOS in NEVADA

$1.00 DOWN
$10.00 MONTHLY
FULL PRICE $495

THE BOOM THAT HAD TO COME IS NOW ON IN NEVADA. Ground floor buyers are reaping fortunes from small initial investments. A factual example of skyrocketing values is Las Vegas, Nevada. Land in Las Vegas that originally sold for $200.00 an acre now sells for $20,000.00 an acre, a profit of 1000%! Buyers who took advantage of low opening prices have become wealthy. The ground floor opportunity of Las Vegas is gone, BUT ANOTHER AREA OF PROPEROUS NEVADA IS BEING RELEASED FOR PUBLIC SALE!

This area has such a tremendous growth potential, such a fantastic unlimited future, that wise investors have purchased large acreage. Bing Crosby's ranch was one of the largest ranches in the county. James Stewart is Honorary Sheriff. Yes, the smart experienced investors have sensed the future and are buying MEADOW VALLEY RANCHOS in Elko County, Nevada.

MEADOW VALLEY RANCHOS has all the factors needed to boom . . . to prosper . . . to skyrocket its land values. Ideally located in the prospering Elko Valley, The Ranchos have the backdrop of the statuesque Ruby Mountains. The sparkling Humboldt River, actually flows through the property and is a valuable asset of the Ranchos. Every Rancho fronts on a graded road. The City of Elko, with its long established schools, churches and medical facilities is MEADOW VALLEY RANCHOS friendly neighbor.

FISHING: A fisherman's paradise. Huge Rainbows, Brook Trout and German Browns abound in Alpine-like lakes and streams.

GOLF: Enjoy leisurely golfing, with never a rush for starting times, at the city owned Ruby View Golf Course. This beautiful golf course is only minutes from the property.

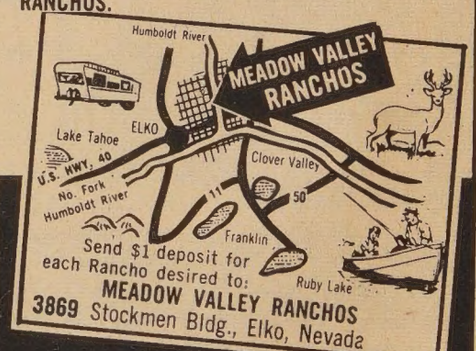
LAKE OSINO: No charge to Rancho owners for full privileges at nearby Lake Osino. Fish, Picnic, Relax at this private recreation area.

HUNTING: You will find the hunting of your life. Big game Mule Deer are abundant. Duck, Quail and Chukar are plentiful.

YOUR PROFITABLE TOMORROW — YES, wise investors are now buying in MEADOW VALLEY RANCHOS, but America's largest corporations, who buy in advance of population explosion, are also investing throughout Nevada. U.S. COMMERCE BUREAU FACT: Per capita income in Nevada is highest of all 50 states.

TAX RELIEF — No State Income, Gift or Inheritance Tax. The low Real Property Tax is actually limited by the State Constitution.

WHAT ARE THE TOTAL COSTS?
The full price of the title to your 1¼ acre Rancho is only $495. Total payment schedule is $1 down, and $10 per month. No interest, no carrying charges. John D. Rockefeller said, "The big fortunes of the future will be made in Real Estate." You are not required to do anything to your land. Live or vacation on it, or watch its value grow, then sell all or part of it for a profit. Your profitable tomorrow is here today in MEADOW VALLEY RANCHOS.



NOW! DON'T MISS THIS OUTSTANDING OPPORTUNITY

MEADOW VALLEY RANCHOS
3869 STOCKMEN BLDG., ELKO, NEVADA 89801

MAIL COUPON TODAY

Yes!—Reserve acreage at MEADOW VALLEY RANCHOS for me—$495 for each 1¼ acre parcel—payable $1 down and $10 a month. No other charges. Send purchase contract and map showing exact location of my holding. You will return my $1 deposit if I request same within 30 days. I enclose $1 deposit for each 1¼ acre Rancho desired.

SIZE ACRES	DOWN	PER MO.
1¼	$1	$10
2½	2	15
3¾	3	20
5	4	25

Name:_____

Address_____

City:_____ Zone:____ State:_____

Indicate No. of Ranchos____ Total enclosed $____

Huntington, W. Va., is slower than the train.

"The truck leaves Detroit earlier and arrives in Huntington later than our train. What's going to happen next Christmas or any time that the Post Office needs us, and there are no trains in operation to move the mail swiftly and reliably?" ●

MARCUS T. BYRNES of Palestine, Texas, traveled more than 3 million miles in engine cabs. We think this set a world's record. He retired from the Missouri Pacific at age 75 after 13 years as a fireman and hostler and 43 years at the throttle. Despite his age, he might not have retired even then if it hadn't been for wartime sabotage on the night of March 3, 1943.

Engineer Byrnes was pulling the *Sunshine Special* which carried hundreds of troops and many civilian passengers. Near Kilgore, Texas, he saw that a block signal, which should have shown green, wasn't burning. Instantly he shut off steam and brought his big engine to a creeping pace. At a point where he would ordinarily have been making 60 mph his engine entered an open switch, rolled into the cinders, and slowly turned over. Byrnes was thrown against his fireman, but neither suffered more than minor bruises. No car left the rails. Shortly afterward, Federal agents arrested two men on a charge of tampering with the switch to sabotage the train.

Even then Byrnes wanted to stay on the job, but members of his family used the accident as an argument to persuade him to retire. So he took things easy until his death, years later. By adding up his runs over a period of 56 years, statisticians estimated his total mileage at well over 3 million. ●

SOME railroads "are deliberately trying to hide the effect on safety of the firemen's removal from diesels," economist Winfield Homer testified recently before the Senate Commerce Committee. He submitted a photostatic copy of a memo which the Missouri Pacific circulated among its supervisors, telling them how to report on highway crossing accidents. The memo stated. *"In cases where there is no fireman on crew . . . make no mention of the absence of the fireman."* (Presumably this refers only to statements that railroad officials make to newspaper reporters.) ●

EXCEPT for the Chicago & North Western, trains on double-track lines usually travel to the right, like highway traffic. When one breaks down, it may be run reversed or against the traffic current by a "19" order in manual block territory, to avoid delaying a following train. Apropos of this, O.W. Brooks, Box 187, Emporium, Pa. 15834, cites an instance that occurred about 30 years ago, before the days of modern communication:

"A Pennsy freight train broke down one night, whereupon a following train was reversed. After a while the first train made repairs, moved on, and cleared the block; but a freight was due in the opposite direction. As the track it would normally occupy was being used by an opposing train, it too was reversed. So we had the odd situation of two trains moving toward each other at night, but on reversed tracks! Neither engineer knew about the other train. When they met on a sharp curve, each engineer thought that the other train was on his track and that a head-on collision was inevitable, so they both applied emergency brakes. Finally, after discovering the real situation, they both proceeded, much chagrinned." ●

MEMORIES of firing steam locomotives are recalled by James F. Byrne, 97 Stuyvesant Pl., Staten Island, N.Y. 10301. "I worked hard but enjoyed it," he says. "I loved the smell of hot oil and grease, and clean engines. If I had a dirty engine I cleaned her before I began firing. I'm glad I was born in the Steam Age.

"While working in a Westinghouse Air Brake machine shop I heard the news of Pearl Harbor. Not long afterward I found myself with the U.S. Engineers Corps in France firing English and Australian 2-8-0's, Canadian 4-6-0s, French and Belgian locos, and American 4-6-0's, 2-8-0's, and 0-6-OT's built by Baldwin. One of the jobs I fired hauled the first civil supply train into Lille while Nazi troops were still being chased out from the other end of the city a mile away! We proceeded only as fast as our men could lay track to replace what the Germans destroyed. Now retired, I am enjoying a model railroad layout—steam, of course." ●

SOUTHERN PACIFIC is reversing a national trend in railroading by building a 78-mile cutoff from Palmdale to Colton, Calif. The job is expected to be finished early in 1968. New track construction for the last 30 years by all U.S. railroads has averaged about 50 miles annually while abandonment of existing lines has averaged 1,150 miles.

The $25 million cutoff will shorten SP's main transcontinental route by 46 miles. It will also ease the congestion in the Los Angeles terminal and permit quicker movement at transcontinental freight, which will bypass the busy metropolitan area. ●

A TRAIN ORDER on the B&O dated Sept. 14, 1884, read, "Eng 382 run wild Indianapolis to Comersville," writes J. E. McFall, 622 E. 5th Street, Comersville, Ind. He also quotes the following from an employees' timetable of the Cincinnati, Hamilton & Dayton (now B&O's Indianapolis Div.), dated Dec. 27, 1885:

Rule 9. Wild trains not carrying white signals will always carry two green signals on the front of engine.

Rule 10. An order from train dispatcher to 'run wild' means that no red signals have been carried and that such wild trains shall run avoiding all regular trains and all trains running under red signals. ●

OVERSEAS. Honeymoon couples in Ankara, Turkey, are given a 40 per cent reduction on their railroad tickets. To obtain the reduction, all the couples have to do is show their marriage certificate at the ticket office up to 15 days after the wedding.

French Railways will install beauty salons on several major rail lines. Another innovation is promised for married ladies—nurseries, where travel-weary kids can be parked until you reach your destination.

Israel Rys. are replacing track on the main line between Haifa and Tel Aviv with continuous welded rail on concrete sleepers.

German National Railways, like those in nearly all countries, are mostly either dieselized or electrified, but their branch lines are still using considerable steam, reports Frank T. Reilly, 306 Front St., Dunellen, N.J. 08812, who served 2½ years in the U.S. Army overseas.

"All German narrow-gage lines operate old 0-6-OT's or 0-10-OT's," he writes. "One such line in Ingolstadt, Bavaria, has two Baldwin-built Moguls stored serviceable. They all use ancient wooden-bodied coaches with open-end platforms from the pre-1900 era. These are listed as second class; usually such lines have no first class accommodations. Railfans like to ride such equipment.

"The only streamlined steam loco running on a German standard-gage line—or anywhere else that I know of—is a sleek Pacific, No. 10 001, built by Krupp in 1956. She pulls out of Frankfort about 10:30 a.m. The only other engine of this type ever built, No. 10 002, is out of service. But plenty of old electric locos are still running on the main lines. The roundhouse at Stuttgart is a good place to photograph both steam and diesel power."

"I am a fireman with the Queensland Railways and my great-grandfather was a driver (engineer) during the beginnings of railways in this state about 100 years ago," writes Clive N. Plowes, 736 Waterworks Rd., The Gap, W-5, Brisbane, Queensland, Australia. "A total of 764 locomotives are operating in Queensland; all but 141 are steam." ●

Move Up Faster — Make More Money With N.T.S. "PROJECT METHOD" HOME TRAINING

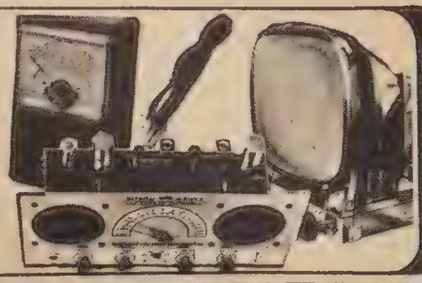
Looking for your first real job in industry? Are you stalemated in a dead-end job? Or, are you being left behind because you're not up on new industry methods? Don't let technical progress — automation — pass you up. There's an N.T.S. Project Method training program to help you MOVE UP FASTER and MAKE MORE MONEY!

N.T.S., a leading technical school for more than 60 years, **shop-tests every lesson and manual.** Easy-to-follow lessons are fully illustrated so you can learn **fast.** Look over the big opportunity home study courses below. Choose your field! Check the coupon and mail it today! You'll soon be on your way to a high-paying new career!

ELECTRONICS DIVISION

1. Electronics-TV-Radio Servicing and Communications
2. Master Course in Electronics-TV-Radio Advanced TV and Industrial Electronics
3. FCC License Course
4. Radio Servicing (AM-FM-Transistors)
5. Television Servicing (Including Color)
6. Stereo, Hi-Fi and Sound Systems
7. Basic Electronics
8. Electronics Math

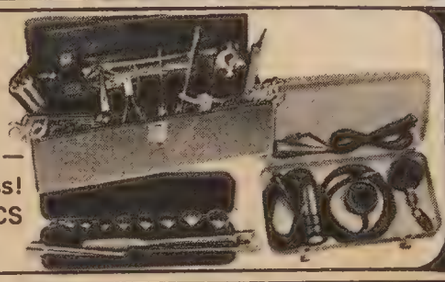
Train yourself quickly for America's "big future" industry! BIG EQUIPMENT KITS come with many of the electronics courses — at NO EXTRA COST! NO KIT DEPOSITS REQUIRED — equipment is included with your tuition.



AUTO-MECHANICS DIVISION

1. Automotive-Diesel Master Course
2. Automotive Mechanics
3. Diesel Mechanics
4. Engine Tune-up and Electricity

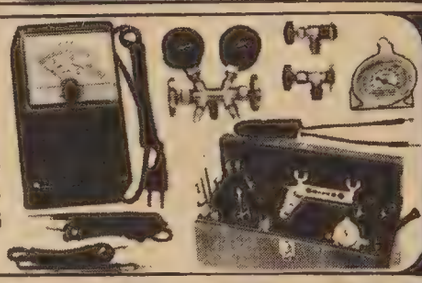
Eighty million cars and trucks need maintenance! Here's opportunity for you—in manufacturing, in sales and service — in your own auto repair business! VALUABLE TOOLS AND EQUIPMENT COME WITH ALL N.T.S. AUTO-MECHANICS COURSES! NO KIT DEPOSITS REQUIRED — NO EXTRA COST!



AIR CONDITIONING — REFRIGERATION DIVISION

1. Air Conditioning-Refrigeration Servicing Course
2. Air Conditioning, Refrigeration & Electrical Appliances Master Course

Good income in installation & servicing homes, factories, schools, hotels & motels, office buildings, stores, cars, trains, buses and in servicing electrical appliances. The trained man in these fields is in demand! BOTH COURSES COME WITH BIG EQUIPMENT KITS AT NO EXTRA CHARGE. NO KIT DEPOSITS REQUIRED.



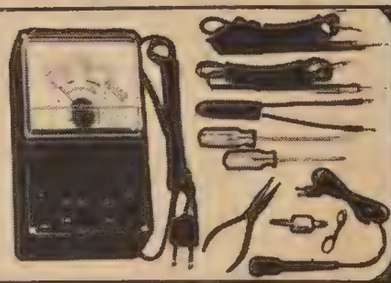
HIGH SCHOOL AT HOME

National offers accredited high school programs. Take only subjects you need. Study at your own pace. Everything included at one low tuition. Check special High School box in coupon for full information and FREE catalog.

HOME APPLIANCES DIVISION

1. **Home Appliances Master Technician's Course.** Prepares you quickly for a business of your own in all phases of major and small appliance work.
2. **Home Appliances Servicing Course.** Prepares you for a part or full time job. Earn while you learn.

NO KIT DEPOSITS REQUIRED



Classroom Training at Los Angeles.

You can take classroom training at Los Angeles in Sunny Southern California. N. T. S. is the oldest and largest school of its kind. Check Resident School box in coupon for details.

SEND FOR FREE BOOK & SAMPLE LESSON

CHECK ONE ONLY

NATIONAL TECHNICAL SCHOOLS

WORLD-WIDE TRAINING SINCE 1905

4000 S. Figueroa Street, Los Angeles, Calif. 90037

YOU ENROLL BY MAIL UNDER N.T.S. "NO OBLIGATION PLAN." WE HAVE NO SALESMEN; THIS MEANS LOWER TUITION FOR YOU.

Accredited Member National Home Study Council

ACCREDITED SCHOOL · NATIONAL HOME STUDY COUNCIL

NATIONAL TECHNICAL SCHOOLS

WORLD-WIDE TRAINING SINCE 1905

NATIONAL TECHNICAL SCHOOLS, DEPT. 209-76
4000 S. Figueroa St., Los Angeles, Calif. 90037

Please rush FREE BOOK AND SAMPLE LESSON on Courses in the Division checked below. No obligation — No salesman will call.

- ☐ ELECTRONICS Division
- ☐ AUTO-MECHANICS Division
- ☐ AIR CONDITIONING-REFRIGERATION Division
- ☐ HOME APPLIANCES Division
- ☐ HIGH SCHOOL Department

Name_____ Age____

Address _____

City_____ State_____ Zip____

☐ Check here if interested ONLY in classroom training at Los Angeles.

NOW YOU CAN BUY FORDS, CHEVROLETS, DODGES BELOW WHOLESALE!!

NO GIMMICKS, NO HIDDEN CHARGES . . . THIS IS A STRAIGHT, HONEST OFFER! *IMMEDIATE DELIVERY GUARANTEED.* RIGHT TO YOUR FRONT DOOR ANYWHERE IN THE UNITED STATES!!

ONLY $50 DOWN	AND THE BALANCE ON LONG EASY MONTHLY PAYMENTS!!! ANOTHER BIG SPECIAL FOR CLUB MEMBERS ONLY. JOIN TODAY.	ONLY $50 DOWN

HOW DO YOU GET IN ON THIS FABULOUS DEAL?

All you have to do is join the WHOLESALE-DISCOUNT BUYERS CLUB. As a member we'll show you how you can get the car of your choice **immediately** at the lowest ever price as shown above.

WHAT ELSE DOES THE CLUB DO?

As a club member, you receive regular mailings with pictures and descriptions of dozens and dozens of **name brand** items that you can buy direct by mail at fantastic low, low wholesale-discount prices. Name brands such as DUNCAN-HINES, DORMEYER, COLEMAN, GRUEN, PRESTO, INTERNATIONAL SILVER, NUTONE, POLAROID, REMINGTON RAND, SCHICK, SMITH CORONA, SUNBEAM, WATERMAN, WEBCOR, WEAREVER, WESTINGHOUSE AND MANY, MANY MORE...APPLIANCES, TV SETS, TYPEWRITERS, WATCHES, JEWELRY, RADIOS, STEREO SETS, COOKWARE, FISHING SETS, SILVERWARE, HUNTING EQUIPMENT, BOOKS, GLASSWARE, LINENS, DRAPERY, FABRICS, FURNITURE, TOYS, FUR STOLES, HOSIERY, CLOTHING, SHOES, AND MUCH, MUCH MORE . . . Why pay regular retail prices? Join the WHOLESALE-DISCOUNT BUYERS CLUB today and start saving big money.

MONEY BACK GUARANTEE

We're so certain that you'll be absolutely thrilled as a member of the club, that we'll refund your $3.00 membership fee anytime during the year you belong if you are dissatisfied for any reason whatsoever, with no questions asked. You have nothing to lose and everything to gain!

HOW MUCH DOES IT COST TO JOIN THE CLUB?

You pay only three dollars for a full year's membership! There are no other charges, nothing else to pay. And you are under no obligation of any kind when you join the club. You don't have to buy anything at all if you don't want to.

WHOLESALE-DISCOUNT BUYERS CLUB
DEPT. 118-8
550 FIFTH AVENUE
NEW YORK, N. Y. 10036

I enclose three dollars as payment in full for a year's membership in the WHOLESALE-DISCOUNT BUYERS CLUB. Please send complete information on the automobiles as described above, immediately by return mail. Also put me on the list to receive the descriptions and photos of name brand merchandise that I can purchase at wholesale and discount prices by mail. I understand that I am not obligated to buy anything and that I will receive a full refund of my $3.00 membership fee at anytime, with no questions asked.

NAME_____

ADDRESS_____

CITY_____ STATE_____

ZIP CODE_____

Photographs of the Month

Photo by Jim C. Seacrest, 2750 Woodscrest, Lincoln, Neb. 68502

Steam engine on the Rock Island? No, indeed! Look closely. This is a "smoking" diesel, No. 645, class E8, photographed last October at Colorado Springs, Colo. The fireman seems to be having trouble with the operation of his steam generator.

Twenty years ago Erie engine No. 2509, familiarly known as "Big Liz," wheeled train No. 56, *The Tuxedo*, which we see storming through Ridgewood, New Jersey.

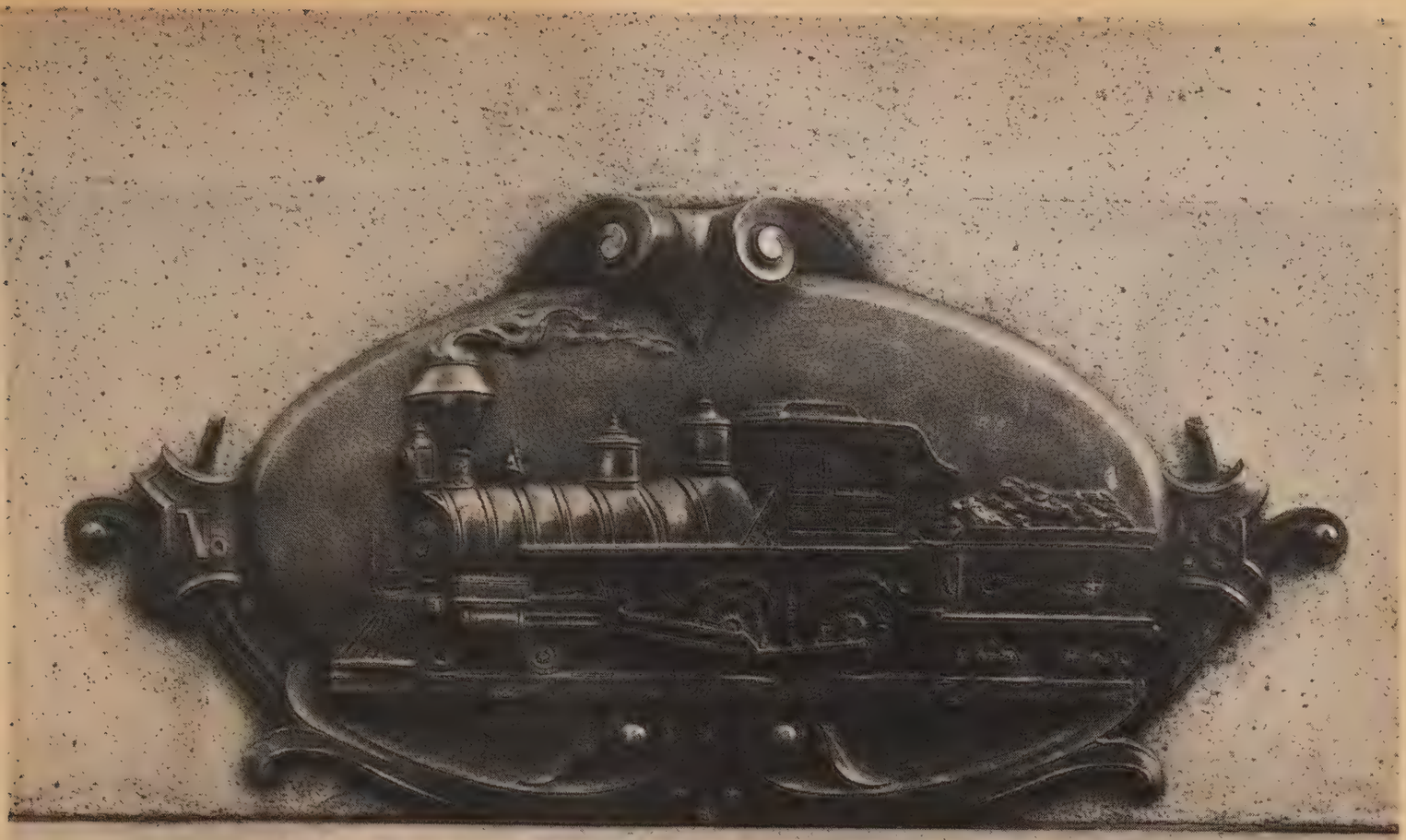
Photo by Robert F. Collins,
Erie-Lackawanna train dispatcher,
436 Redcliffe St., Wyckoff, N.J. 47481

No. 24 of State Belt Railroad pulls a cut of cars from a Santa Fe car barge at the Powell Street interchange in San Francisco. Behind her looms an old square-rigger, with sails furled, preserved by the local Maritime Museum.

John C. Illman, 7400 Erroll Drive, El Cerrito, Calif.

Famed passenger train *Dixie Flyer* is shown at Chattanooga, Tenn., on its last run January 20, 1966.

Col. James G. Bogle
1749 Dyson Drive, N.E.
Atlanta, Georgia 30307



SP Built 248 Engines for Itself

by **RICHARD M. MURDOCK**

locomotive engineer, Southern Pacific Railroad

Bronze plaque on base of statue of Andrew J. Stevens, the Central Pacific's first General Master Mechanic, shows CP 48, the first engine with Stevens valve gear. Below is a portrait of Mr. Stevens and on next page is a photo of the statue.
Photo from Southern Pacific achives

LEAN and handsome, with friendly eyes and a full, neatly-groomed beard, Andrew Jackson Stevens was the genius chiefly responsible for the first 74 locomotives built by the Southern Pacific Railroad, then called the Central Pacific, over a period of sixteen years.

Andy had begun railroading in 1850 at age seventeen, and in 1867 Leland Stanford, president of the CP, hired him as a master mechanic for the Oakland Shops. The brilliant young man lived up to his title so well that within two years he was transferred to Sacramento as the road's first General Master Mechanic.

During the period in which this company was building locomotives, for more than half of the years between 1872 and 1937, it turned out a total of 248 steamers for its own use. In addition, the company built a 4-4-0 for the Virginia & Truckee, now still operated, not by the V&T but by Paramount Studios. So the engine total was really 249.

Few roads have beaten this record. Of the total, more than 200 engines went into freight and passenger service; the rest were switchers.

Sacramento built 197. Two were built in Ogden (in 1919), 14 at Los Angeles (1917-'28), 24 in Houston (1921-'30), and 11 at Algiers, La. (1919-'21). But with so many good lo-

The author as an SP steam engineman.

comotive builders throughout the country—Baldwin, Norris, Mason, *et al.*—you may wonder why the Central Pacific and its successor, the SP, engaged in such activities. There were several reasons.

In the burst of railroad expansion that followed the Civil War, the demand for steam power far exceeded the supply. Not enough engines to go around. Then, too, Collis P. Huntington, the CP's vice president and buyer of motive power and rolling stock, found that after the "wedding of the rails" in 1869 at Promontory, Utah, his system had an odd assortment of engines, many of them inherited from mergers with other roads and nearly all in poor repair from overwork.

Furthermore, Huntington had taken a dislike to Matthias Baldwin and stubbornly refused to buy Philadelphia engines. So, besides undertaking an extensive program of locomotive repairs at the Sacramento Shops, he followed Andy Stevens' persuasive advice that the company manufacture its own motive power.

The first home-built locomotive credited to the Sacramento Shops was a 4-4-0 type, No. 173. Actually, Norris constructed her at Lancaster, Pa., for the Western Pacific in 1864 but Stevens rebuilt her so completely eight years later that he even gave her a CPRR builder's plate. The first entirely-new engine to emerge from the Sacramento Shop was the second to be numbered 55, also an Eight-wheeler.

We find the CP's classification system confusing, due to the retention of original numbers on the motive power acquired from smaller merged roads, besides which about 170 of the earlier engines had names also. Some 300 roads, including 80 that owned locomotives, were consolidated in a relatively short time to form what is today the sprawling Southern Pacific system. As a result, many engines that eventually ran on SP rails were given, in turn, three or more numbers.

The Stevens monument in Sacramento.

The parent road was the CP. Then the Big Four (Huntington, Stanford, Crocker, and Hopkins) formed the original SP of California by taking over various shortlines in the San Francisco area. The rail network spread southward and finally, in 1885, the CP and SP were merged into one great railroad. But for years after that, as if from force of habit, engines were assigned to either the CP or the SP.

The road was divided into two big systems, Pacific and Atlantic. In 1891 Pacific System power was numbered above 1000, Atlantic System engines already having been reunumbered in 1885 as the lot below 1000. In 1901 a general renumbering of both systems again occurred, with No. 1000 still the dividing line between the two groups.

Then in 1913 SP power began to be classified by letter: T for Ten-wheeler, C for Consolidation, P for Pacific, etc., with such sub-classifications as T-2, C-10, P-3, and so on. Earlier classification had been more general.

Tenders displayed numerals while cabs showed the words *Southern Pacific*. On Feb. 9, 1916, this arrangement was reversed; large numbers went to the cab, *Southern Pacific Lines* to the tender. Forty years later the word *Lines* was dropped and the lettering enlarged. Meanwhile, in 1872, do-it-yourself construction had got under way at the Sacramento Shops and in 1873-'74 nine additional 4-4-0's were built to the same specifications as the second No. 55.

Between 1881 and '82 seven 2-6-2 (Prairie) types, designed mostly for local passenger service in Oakland and Berkeley, were spawned in Sacramento and numbered 230-236, later 1501-1507, and finally 1900-1906. These brisk little saddle-tankers were a familiar sight puffing around 7th Street and the Oakland Mole but vanished in 1911 when electrification of the Bay Area commuter lines gave birth to the famed red trains.

Luckily, one has survived. Reassigned her original number, CP 233, she stands on exhibition today outside Oakland's Municipal Auditorium. Another of the Prairies, No. 1901 (previously 231, then 1502), converted into a shop goat, had the longest life of any CP locomotive. Renumbered 571 and rebuilt as 0-6-2, she successfully fought off the acetylene torch until 1947, with 65 years of service!

Three engines built by Globe in '68, Nos. 122, 123, and 125, were retired in

Both photogaphs on this page fom SP archives

Roundhouse at Sacramento Shops, about 1870, showing 4-4-0 type engine 167 and, in foreground, a discarded diamond stack.

Central Pacific 1503, ex-232, later SP 109, built 1882 at Sacramento with 51″ drivers, for Oakland commuter runs.
Gerald M. Best collection

CP 173, the first loco outshopped at Sacramento, was really a rebuild of an Eight-wheeler built by Norris at Lancaster, Pa.
Photo from SP archives

1885. Using their few remaining serviceable parts and the same numbers, Sacramento Shops produced in 1886 three fine engines with new Andy Stevens boilers, cylinders, and valve gear. These were sporty-looking 4-4-0's, each built to slightly different specifications. Later, another engine, 166, was fabricated from the same blueprints as the 125, and in 1891 this group of four was renumbered 1362-1365.

An even dozen similar engines were built in 1887-'88. Their original Central Pacific numbers were 217-221 and 264-270, but in the 1891 changeover they became 1414-1425. A Ten-wheeler outshopped in 1885 from parts of CP's first No. 19 served as a prototype for twenty-one 4-6-0's the Sacramento Shops turned out in 1888. Seven were assigned to the Southern Pacific and 14 to CP. All boasted the Stevens patented steam chest and valve gear, and later were classified T-6. Of this group, SP 213 became 1777, then 2187, and was dismantled in 1927. The CP's 240 became 1767, then 2196, and went to the junk pile in 1912. These eye-pleasing little steamers served capably for many years.

Realizing as early as 1880 that heavier power was needed for use in the Sierras, Andy Stevens set to work on plans for CP 229, a 4-8-0 with numerous appliances well in advance of her time. Outshopped in April, 1882, she had clasp brakes, power reverse, a combustion chamber in the boiler ahead of the firebox, and double valves, upper and lower, at each end of the steam chest. Built to burn either wood or coal, this sleek behemoth wore a huge diamond stack—until the very moment of her official outshopping. The stack failed to clear, knocking itself off and damaging the doorway.

But she performed gloriously in the mountains, hauling up to 20 loads of freight on the steepest grades at ten miles per hour, a job formerly requiring three or four Eight- and Ten-wheelers. She was CP's only 4-8-0 but the first of 84 such types assigned to SP. Called the *Mastodon*, she had a clerestory-type cab that sloped downward at the rear to form a low overhang—supposedly to protect the fireman in bad weather but which also served as a prime bump-raiser for the crowns of unsuspecting enginemen.

In 1883 the *Mastodon* went to the Chicago Exposition of Railroad Appliances in charge of G. A. Stoddard, who was Stevens' assistant. There she elicited much favorable comment. Afterward Stoddard took her to the Cooke Locomotive Works, from which he ordered 25 similar engines. These steamers, when built, were so efficient that they put President Stanford in a buoyant mood and he told Andy Stevens to "build the world's largest locomotive."

Stevens did. This engine, *El Gobernador* (The Governor), made history as a colossal failure. Numbered CP 237, she was 20 tons heavier than all other existing engines, weighing 121,600 pounds on the drivers, and was a 4-10-0, the only such wheel arrangement on any American road. The drivers measured 57 inches. She burned wood and carried 140 pounds of steam pressure.

So large was the frame that it had to be cast in two sections. At one point during construction Vice President Crocker visited the Sacramento Shops, took one look at the monstrosity, and ordered the job halted. Upon learning of this, President Stanford countermanded the order.

Stevens had designed special rotary valves that operated from a single eccentric and reversed from a curved rocker. But when the iron beast was outshopped in 1884 her valves did not function right, so the gear was removed and new cylinders were installed, along with the first of Andy's double valves. This time they worked perfectly. The 237 was shipped to Bakersfield, Calif., in pieces, reassembled, and used in helper service on the Tehachapis. But her 21x36-inch cylinders proved too steam-hungry for even that boiler. After the gargantuan freak had stalled when tried alone at the head of a 25-car drag, with *two* sweaty firemen heaving wood, an investigation was held.

"We had flames shooting from her stack," one fireman testified, "but still no steam. All hell couldn't keep her hot."

Shipped back to Sacramento in disgrace, *El Gobernador* sat around the

Built 1888 at Sacramento, the SP 213 had 63″ drivers and Stevens valve gear.
Gerald M. Best collection

shops like a museum piece until she was dismantled in 1894, the year of the nation-wide Pullman Strike. Her boiler continued to give stationery service for eleven years afterward, then it also was scrapped.

For the most part, the bearded Andy Stevens had a great record as General Master Mechanic. His was a creative mind and he tried out many innovations, most of which succeeded. But in addition to *El Gobernador*, he flopped badly on his "boiler economizer." Still, you can't blame him for trying. Back in those days, coal had to be shipped to California around Cape Horn, the southern tip of South America—a long and costly trip by sea—and efforts were made to cut this expense. Andy's economizer consisted of a boiler dome fitted inside with baffle plates over which water trickled and became hot. The device was a crude forerunner of the feedwater heater. Unfortunately, it failed to save much coal and had to be removed from the many 4-4-0's and 4-6-0's on which it was installed.

On the successful side, A. J. S. had patents on 26 other inventions designed to boost steam-engine performance. Among these was his "monkey motion" valve gear, so named because, when working, it resembled a hopping ape. Furthermore, Andy's boilers had specially designed and efficient radial staybolts. At the time of his death at the early age of 55 this highly talented inventor had construction plans on hand for many more locomotives. Ironically, with his death in 1888 those plans were scrapped. And in 1889, engine building ceased for 28 years not only at the Sacramento Shops but all over the system.

So highly esteemed was Andy Stevens that a nine-foot bronze statue of him was erected by his fellow workers in a Sacramento park and was unveiled on Thanksgiving Day, 1889.

Imported from the East to fill Andy's boots came a lesser man, H. J. Small, who was given the title General Superintendent of Motive Power. Small disliked all of his predecessor's engines. His pets were Schenectady cross-compounds and Baldwin-Vauclain "wrinkle-belly" compounds, the latter so called because their Vanderbilt boilers tapered far forward near the smokebox, giving them a bulgy and ugly appearance. Small ordered many engines in those two categories, but none proved very successful, particularly as compounds. So, while the road's shops were not building new power, each was kept busy rebuilding engines and changing over Small's compounds to simples.

In May, 1895, the Los Angeles Shops scored a first by converting No. 1344 from coal to an oilburner, thus starting an eventual system-wide changeover.

Between 1904 and 1913, under the leadership of Edward H. Harriman, the bespectacled wizard of Wall Street with a walrus mustache, the Southern Pacific and Union Pacific operated in close harmony—so close, in fact, that

(Above) SP's West Oakland roundhouse as it looked in 1904. (Right) No. 237, *El Gobernador*, when built, was the largest locomotive on the globe.

Collection of Gerald M. Best, 541 [illegible] Drive, Beverly Hills, Calif. 90210

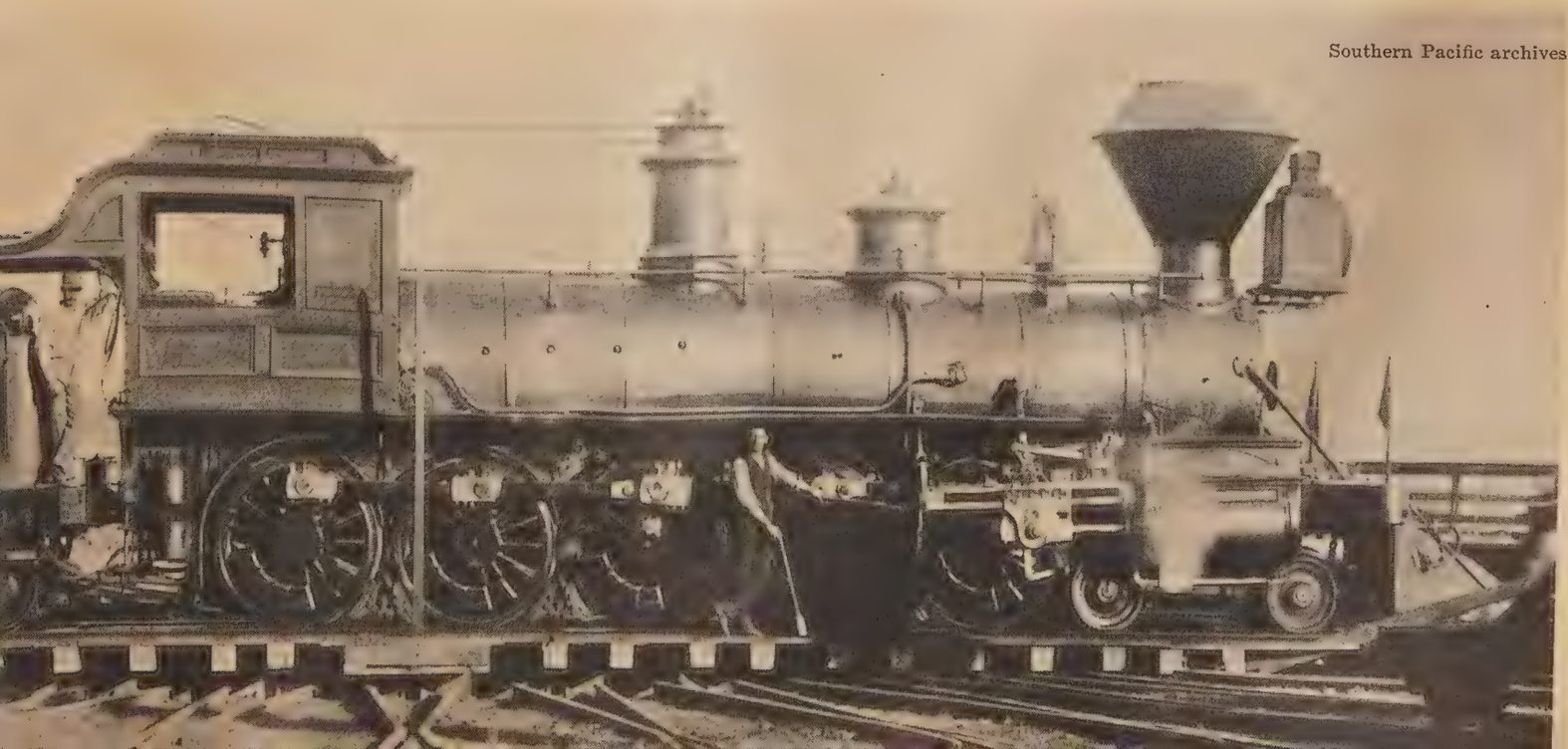
the engines of both roads began to reflect a common standard, interchangeable parts being stocked all over the country. The use of locomotive indicators, for example, was adopted by both companies at that time, and are still used today. Originally mounted on top of the smokebox, indicators were number-carrying incasements which served to identify either regular or extra trains.

Ed Harriman nearly brought about a merger of the SP and UP, but a Federal court order in 1913 forced the Union Pacific to relinquish its holdings in the other road, after which each company went its separate way.

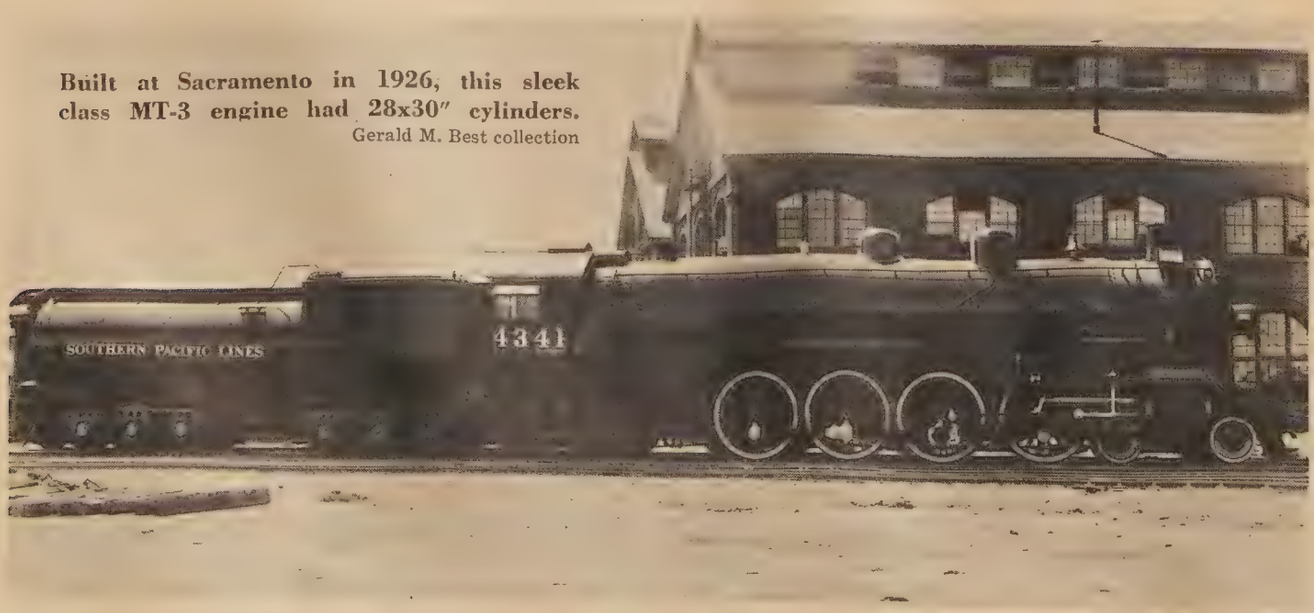
Even so, the "common standard" method of stocking spare engine parts soon paid off. World War 1 brought a fresh surge of business, both passenger and freight, and with it the need for more and larger power. A survey showed that the Sacramento Shops had on hand enough driving wheels, cylinders, frame, and boiler for a new Consolidation (2-8-0) type freight-hauler. So in August, 1917, Sacramento built such an engine: No. 2839, class C-10, outshopped in August. Sacramento was back in business, Andy Stevens style.

Another new one, the 2840, soon followed. And during 1918-'19, seventeen more C-10's were built. Nos. 2843, 2844, and 2846 were assembled at the Los Angeles Shops while Ogden, Utah, contributed its only two home-builts, the 2856 and 2857. The rest were outshopped at Sacramento. These "hogs" —so called because of the amount of water they consumed, particularly before the days of superheating—were

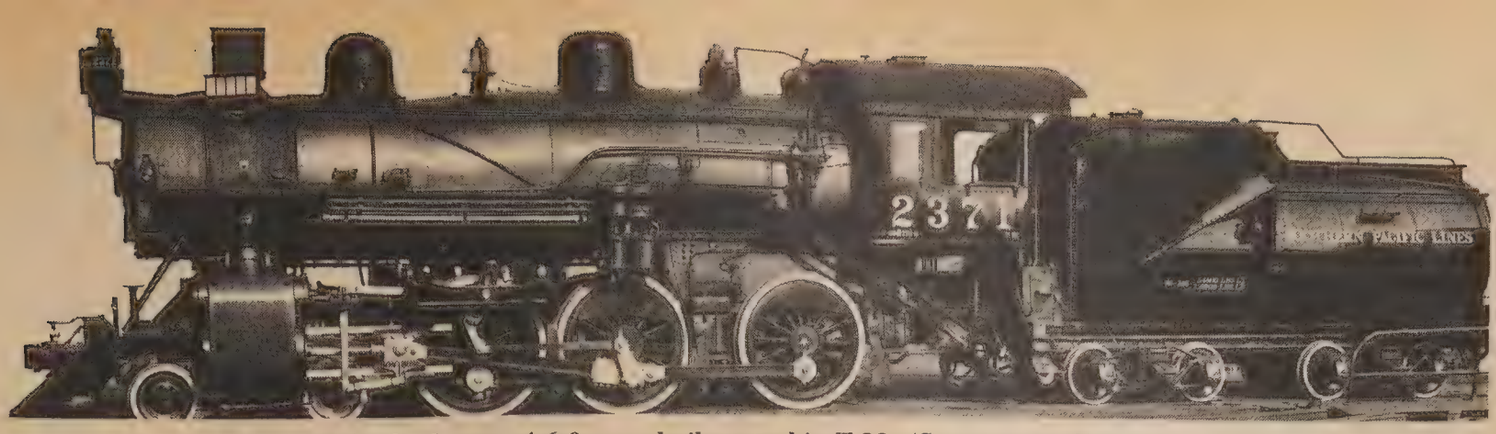
Southern Pacific archives



It was a familiar sight to see a giant locomotive, like the 3670, held aloft in the erecting shops at Los Angeles.
Southern Pacific archives



Built at Sacramento in 1926, this sleek class MT-3 engine had 28x30″ cylinders.
Gerald M. Best collection



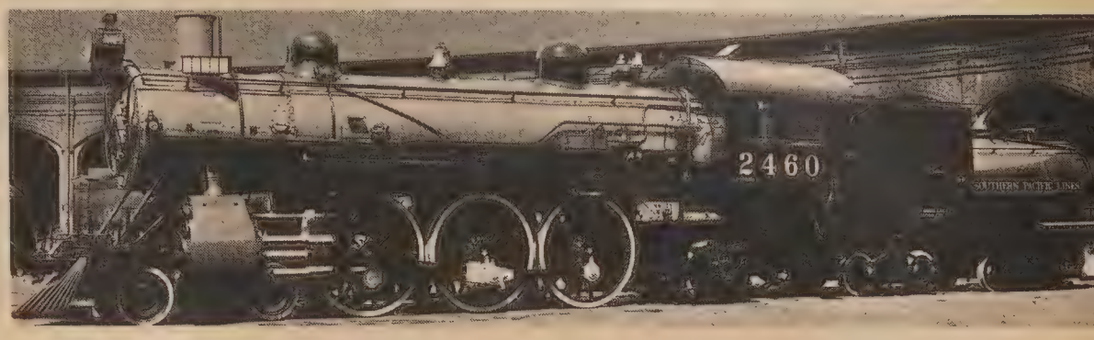
Very likely the largest 4-6-0 ever built was this T-32 (Sacramento, Nov. 1917).
Gerald M. Best collection

very successful. They joined the large herd of predecessors purchased from various locomotive builders around the country, most of which served well in freight and local service right up to the time of the big diesel squeeze-out.

The vast 210-acre complex east of Sacramento's "I" Street bridge was busy around the clock, each shop being important. Frames and driving-wheel centers came from the steel foundry. The boiler shop carried on by the light of the welder's torch and chatter of the riveter's gun. From the nearby iron foundry came cylinders and other cast fixtures, while the brass foundry fashioned nipples, valves, and so on.

A mountainous stack of wheels stood near the wheel foundry. The huge backshop was tagged by a row of very high doors and occupied by engines in various stages of repair. Massive overhead cranes grumbled back and forth. Close by, gigantic lathes and drill presses worked endlessly in the machine shop. The deafening clatter of great steel hammers and bending machines marked the forge shop. A pungent mixture of odors told over 3,000 workers that this was home, the Sacramento Shops, turning out new and rebuilt engines of all classes to serve the Southern Pacific's widespread empire.

From these shops in September, 1917, and the following April emerged two proud Pacifics, classed P-3: the 2459 and 2460. The latter had the unenviable distinction of diving into Carquinez Straits with Jim Barnes at her throttle. A combination of light beams and a high tide had given Jim the illusion that one of the world's largest train ferries, for which he was waiting, had docked, while in reality it was still a few yards off. After the mighty splash Barnes and his fireman managed to swim safely to shore, but it took the biggest marine derrick at the nearby Mare Island Navy Yard to raise the 2460 from her watery grave.



Another superb product of Sacramento Shops was this class P-32, built in 1918.
Gerald M. Best collection

Southern Pacific 2204 with train 142 at Salmonberry, Ore., nearly 50 years ago.
H. H. Arey photo, Gerald M. Best collection

Southern Pacific archives
First SP oilburner, 1344, began service in May '95 with Engr. Jesse C. Martin.

First locomotive built at Los Angeles (December, 1917), SP class C-10 eventually became San Diego & Arizona Eastern 105
Gerald M. Best collection

About this time, Moguls 1823, 1824, and 1825 were outshopped with rebuilt boilers from old Baldwins. Then followed two new Moguls, the 1826 and 1827, designed from scratch at the drafting tables in San Francisco and Sacramento.

Later, in 1928-'29, the company's shops in Houston, Texas, built ten more Moguls, 520-529. Sent to the Pacific System in 1939 and '41 (except No. 525), the group was renumbered 1837-1845. Three years later they were returned to the Texas & New Orleans lines of the SP and reassigned their old numbers. These Moguls were the heaviest and most powerful on the system, weighing 185,000 pounds "on the hoof," with 42,000 pounds of tractive effort.

From 1917 to 1920 fourteen Ten-wheelers of class T-32—the last new SP-built 4-6-0's—were outshopped at Sacramento and Los Angeles and numbered 2371-2384. Those from Los Angeles were the 2373, 2374, and 2375. Of this group, the 2371 was rebuilt later to class T-40, her 63-inch drivers being replaced with those of 69 inches. Carrying 210 pounds of boiler pressure and weighing nearly 200,000 pounds on the drivers, this iron horse was reputed to be the heaviest 4-6-0 ever in service. Even so, all 2300's served well on both local freight and passenger trains, many surviving up to the twilight of steam.

Meanwhile, the shops at Algiers, La. (1919-'21) was busily turning out eleven Mikados, Nos. 738 and 740-749, for the Texas lines. Houston built the 739. All 169 Mikados that ever saw

Locomotive building at the Sacramento Shops (see above and next page). The 614,200-pound engine pictured above was almost the 200th built there since the shops opened in 1872. These shops were especially busy during and shortly after World War I.
Southern Pacific archives

No longer does America offer a sight like this at the Sacramento shops. Southen Pacific archives

service on the SP, home-built or otherwise, were built between 1911 and '23. Two of them are still extant—the 743, exhibited at Lafayette, La., and the 745, on display in New Orleans. Primarily freight engines, these Mikes hauled a lot of World War II tonnage.

From 1919 to 1923 the Sacramento Shops turned its attention to switch engines, outshopping 32 heavy 0-6-0's, class S-12. With spacious cabs, they were superheated and had Walschaert valve gear, and new cylindrical-type tenders replacing the old fantails. Water tanks were recessed to hold the oil tank, each of separate construction to prevent leakage.

The goats were numbered 1247-1256 and 1263-1284 some trimmed ornately for station switching, with nickel-plated handrails, acorn nuts, and fancy lettering. The late David L. Joslyn, a locomotive draftsman and official photographer at the Sacramento Shops, told of one such engine, No. 1276, that was used at Sacramento depot. Oddly enough, she was equipped with a richly-toned bronze and silver bell and a melodious chime whistle, the latter being the personal possession of her hogger, Johnnie Norton. When Johnnie got bumped off the station switcher the whistle went with him.

Similar goats of "spit and polish" operated at the Oakland Mole and the San Jose depot. In 1921 the Los Angeles Shops assembled switchers 1257-1262 to about the same specifications, but it took until 1926 for Houston to complete the last ten for T&NO.

Four years later the boilers from some of the old A-3 Atlantics were cannibalized for building eight heavy-duty 0-8-0 switchers, numbered 1307-1314, then 1402-1409, and finally 4501-4508. The last change was made to provide for the numbering of an ever-increasing supply of diesel switchers. By March, 1931, all 0-8-0's except No. 1314 had been outshopped at Sacramento. By that date the big Depression was in full swing, which delayed the 1314's completion until May, 1937. Given 3067's old boiler, she was officially the last of a long line of SP-built engines.

Between 1930 and 1936, 12 similar 0-8-0's numbered 175-186 were outshopped at Houston, later being renumbered 850-861. Four of them, Nos. 176, 179, 180, and 185 were transferred to the Pacific System in 1952-'53, where they became Nos. 4509-4512.

In 1927 the Sacramento Shops updated and renumbered two old Atlantics, and two years later Los Angeles followed suit by rebuilding two others. Those four were SP's most powerful 4-4-2's. In there waning years the cabs and tenders of two of them, Nos. 3000 and 3001, were painted *Daylight* colors (black, orange, and red) to serve on the *Sacramento Daylight*. No. 3025 is the SP's sole surviving Atlantic. In 1915 she stole the show at the Panama Pacific Exposition in San Francisco, and in 1952 was presented to Travel Town in Griffith Park, Los Angeles.

In 1925 the Sacramento Shops began building the Southern Pacific's last all-new road steamers—sleek, efficient 4-8-2 (Mountain) types in the 4300 series. At that time the capable and popular, A. D. Williams, known as "Baldy," was the road's Superintendent of Motive Power for the Northern District—a big man in a big job. Sam Meyers, a veteran roundhouse foreman on the Western Division, who served his apprenticeship under Williams, says:

"Big is right, but he took an interest in us all. Always had time to stop and see how we were making out."

Schenectady built the first twenty-eight 4300's in 1923 and '24. These engines performed so well that the SP decided to outshop a massive block of 49 new ones at Sacramento—Nos. 4328-4376—the largest single group of any one type SP ever attempted. Baldy Williams was just the man for the job, which took from September, 1925, to March, 1930. Ah, such speedy, handsome, versatile engines! Your author can vouch for this from personal experience. They were a pleasure to fire and to run.

Each was equipped with the latest features: boosters, superheaters, Worthington feedwater pumps, mechanical valve and piston rod lubricators, forced-feed driving axle lubrication, tire coolers, and even tie coolers under semi-cylindrical 16,000-gallon six-wheeled truck tenders. On long-grade braking, where the danger of fire from sparks of overheated brakeshoes rose sharply, the engineer turned a valve in the cab to sprinkle the ties with a track-wide perforated pipe.

Beginning about 1940, as the 4300's were backshopped they acquired sky-line casings with a streamlined look. The real purpose of this eye-catching shroud was to shoot the smoke back over the cab, instead of into it, while the engine was working light or drifting. Those proud, tireless workhorses were among the last SP steamers finally squeezed out by the usurping diesels.

Outshopping of the 4376 on March 30, 1930, and assembling in May, 1937, of the 1314 (that 0-8-0 switcher with the 3067's boiler) ended 65 years of locomotive building by the SP. Those 248 home-built engines constituted only 6 percent of the road's total number of steamers, about 4,200, but with few exceptions they performed uncommonly well and they won high acclaim for such motive power giants as Andy Stevens and Baldy Williams.

Great men and great engines! Where can you find their like today?

Interesting Railfans No. 43

HENRY N. JOHNSTON

by Freeman Hubbard

Hank Johnston, dressed informally as usual, with his wife, Betty Lee, and his daughter Martha, 17 years old.

AS THE AUTHOR of three books—*Short Line to Paradise, Railroads to the Yosemite Valley*, and *The Railroad That Lighted Southern California*—and now working on a fourth title, Henry Johnston is a railfan to be reckoned with. If you have ever met Hank you'll never forget him. Tall and lanky, 6 feet 4, the exact height of the late Lucius Beebe, with dark brown hair beginning to turn gray, a ready smile, and often clad carelessly in sports clothes—that's Railfan 43. "I hate to dress up," he says.

"If his butched hair didn't always look as though it had just been run over by a lawnmower," Miss Shirley Sargent tells us, "Hank Johnston would be handsome. As it is, he has the engagingly youthful looks of an All-American Boy grown up; and when he is absorbed in research or his model railway system it isn't hard to visualize him as a boy. When I first met Hank at my wilderness home 13 miles west of Yosemite Valley, men, youngsters, and a burly dog spilled out of a jeep and my cat shot up a tree. Things happen when he is around. He moves fast, thinks fast, expresses himself well, and has ideas. He is an outdoors man and appreciates beauty, especially the beauty of the High Sierra."

No. 43 was born Sept. 5, 1922, in Canton, Ohio. Among his early boyhood recollections are a Lionel tinplate operation in the basement of his urban home and the endless fascination of Wheeling & Lake Erie tracks that ran beside his summer residence at Congress Lake, Ohio.

"The water stop was right in front of our summer house," he recalls, "and I spent many happy hours watching the big steam engines take water. At night, freight trains would rumble by, one every few hours. I would lie awake in bed listening to their whistles, at first sounding faintly far away, and sometimes I would get up, throbbing with excitement, go to the window, and see the 50- and 75-car consists thunder by, shaking the frame house as they went and trailing whispy evanescent smoke that drifted above the pines by the lake."

There are no railroaders in Hank's family; but his wife, the former Miss Betty Lee Winfield, comes from a line of Chicago & North Western shopmen. Her father and one grandfather were employed at Boone, Iowa (the division point that Kate Shelly made fa-

Photo by Stanley A. Snook, 4368 S. Leonard Ave., Del Rey, Calif.

Bob Long (in black suit) interviews Hank Johnson on his book, *The Railroad That Lighted Southern California* (a history of the San Joaquin & Eastern). The scene is a ranch near Clovis, Calif., with an old SJ&E caboose in the background.

Hank Johnston (right) autographs a copy of *The Railroad That Lighted Southern California* for William R. Gould, vice president of Southern California Edison Co. Book relates pictorial story of the company's Big Creek setup and its SJ&E Railroad.

Like his dad, Bill (age 20) is fond of sports. Shoots golf in the 70's.

Betty Lee, a gardener by avocation, is admiring some California flowers.

mous) and her Uncle Harold is a recently retired C&NW master mechanic at Chadron, Nebraska. Hank remembers that "About ten years ago Uncle Harold gave me a ride behind his division's last steam engine, taking her out of the Chadron roundhouse himself and running me down the track for some distance and then backing up. What a thrill!"

This trip plus the golden memories of days and nights spent at Congress Lake made Hank Johnston an active railfan. His main interest is modeling.

"After buying an HO set," he says, "I added a new room to the back of my garage and built a narrow-gage layout, 12 by 18 feet, around the wall—and I am still working on it when I can find time. Once a layout is completely finished you lose interest. I am recreating a model logging camp and railroad of about 1895. I have three locomotives: a Shay, a Climax, and a Heisler. Everything else I made from scratch. The scenery is spectacular, I think, with a mill pond, a sawmill, two Old West villages, a logging incline, a mine, and so on. Infrequent passenger service is operated with a short combine. Both *Model Trains* and *The Model Railroader* have featured this set up in articles and pictures."

His non-rail activities have included high school graduation in 1940, work with a safe and lock company, and being drafted into the U.S. Signal Corps in 1942. While in basic training at Camp Crowder, Missouri, he caught pneumonia on overnight maneuvers. This led to a severe bronchial illness and a medical discharge from the Army.

About five years later he had to spend eight painful months in a Veterans Hospital, where part of one lung was removed. Hank says he is now in fairly good shape—but is smoking at the rate of one pack a day. You don't have to be a doctor to know what *that* does to a man with his medical record. Two of our Presidents, Eisenhower and Johnson, quit smoking altogether, on doctor's advice, because they believed that the desire for a long and healthy life was more important than the desire to puff smoldering tobacco wrapped in tissue paper.

Now and then Hank enjoys a pipe. "One of these days," he tells us, "I hope to have the strength to give up smoking altogether."

Meanwhile, after leaving the Army, the subject of this sketch laid the groundwork for eventual bookwriting by majoring in English and minoring in journalism at Kent State University in Ohio under a law which provides education for disabled vets. There he met Betty, who was majoring in speech correction (and who later taught school, fifth grade, for several years), courted her, and married her in June, 1945.

At the University he edited campus publications, daily and otherwise, and helped to pay his way through school by putting out programs for sports events and, with Betty, handling a sandwich and milk route which, he says, "netted us very good money," and he served as a news correspondent for two Ohio newspapers. After graduating from Kent, the young couple moved to California to get away from the cold weather, and their son, Bill, was born there in 1946. Their only other child, Martha, came into the world three years later. Their pet beagle, Sam, was born in 1958, and their sleek Persian cat, Fred, in 1964. That completed the family.

Hank gradually worked his way into the printing business, his career being interrupted, as we have said, by eight months in a Veterans Hospital. In 1958 he opened his own printing shop; later he took in a partner, Glenn Howe, and today Johnston & Howe specialize in commercial printing for business firms. His home address is 1933 Fanwood Avenue, Long Beach, California. 90815. No. 43 is an ardent sports fan. He played on various teams in high school and college and has done quite a bit of sports reporting. Politically he describes himself as a "moderate Republican" but he voted for President Johnson, saying, "I vote for a man, not a party."

"I am alarmed at the rising crime wave and the general lack of respect for authority that prevails in this country," he tells us. "I would like to see more discipline in the schools and stiffer penalties for crime."

For years, off and on, he has been writing newspaper and magazine pieces; and in 1960 he began to accumulate data and photos for a book to be called *Short Line to Paradise*, the story of Yosemite Valley Railroad. This was his first book. It is still on sale, mostly at Yosemite, California, and to date has sold 5,000 copies. Hank's next literary venture was *Railroads to the Yosemite Valley*, which came out in 1963. Both books were published by Johnston & Howe.

"At this point," writes Spencer Crump, the publisher of Trans-Anglo Books, main P.O. box 2252, Los Angeles, California 90053, "he sold Johnston & Howe Publications to Trans-Anglo Books and became our director of pro-

duction and design on both railroad and non-railroad books."

In 1964 Crump asked him to do a book on the San Joaquin & Eastern, which later came off the press as *The Railroad That Lighted Southern California.* "The latest of his three books is almost certain to become a classic," stated *Railroad Magazine's* review. "With so intriguing a subject, plus a rich gallery of rare old photos, an author like Hank Johnston couldn't miss. Hank had already established himself as a rail historian of the Far West."

While still carrying on the printing business, he works part-time as layout man and designer for Trans-Anglo Books. "I paste up proofs and design the books," he says, "besides writing books on my own in so far as time permits. Trans-Anglo now has ten hard-cover books in print and four more are due this year. These things keep me busy. My next book, *They Felled the Redwoods,* the story of Sanger Lumber Company, is scheduled for publication this summer. It is only partly railroadish."

He has an ability to get next to people, reports William R. Gould of Los Angeles, often ferreting out literary material by persuading folks of various ages and interests that the most vital thing they can do is research for his current book.

Hank does his research and writing whenever he can. It is not unusual for him to arise at 4 a.m. on a Saturday, drive to Fresno, 250 miles from his home, spend hours in the library and newspaper office there, interview old-timers in the early evening, and drive the 250 miles back to Long Beach that same night. It makes a long day and calls for a lot of energy, but Hank is blessed with stamina. His main railroad interest is old logging railroads in the Sierra. He collects photos of them all and has "quite a nice assortment." He also likes railroad lamps.

"Hank would make a good crusading district attorney," says Stanley A. Snook. "He gets hold of an idea or lead on some historical item or person and won't quit until he has the information he wants. He works intensely, apparently without thought of time or distance. Many week-ends he is going almost 24 hours a day. Hank gets results because he keeps at it. I think his major fault is too much attention to duty. He should get more rest."

A council of strategy: (left to right): Don De Vere, cartographer; Paul Spirey, researcher, and Hank Johnston, discussing plans for Hank's latest book project.
Photogaph by Stanley A. Snook

David Hubbard Redinger of Laguna Beach, California, has this to say of him: "Two years ago Hank called me from Long Beach. He said that he had just been reading my book, *The Story of Big Creek* (in the Sierras), and was collecting data for use in a book he intended to write on the San Joaquin & Eastern, and that maybe I could help him. Well, I could, and did.

"My wife and I have become well acquainted with Hank and his charming wife Betty. Last summer the four of us took a trip through a part of the Sierra where logging and a sawmill operated 70 years ago. Hank wanted to see where the railway had been located. We drove cautiously along a narrow, curving, bumpy road, at the end of which we met a young man in the third generation of the family that had owned the property. This fellow volunteered to point out what was left of the old logging railway bed, and Hank followed him, obliging the rest of us to wait for hours until they came back. Well, it was dusk when they showed up. Hank was tired but elated. He had found bits of rotted ties and picked up one rusty spike. Had it been gold I don't think he would have shown more enthusiasm."

Hank lists among his "pet peeves" the "fellows who hang onto railroad material on the pretext that they are going to do a book some day." Says he: "If those guys had the time and ability to write books they would probably have written them long ago. Speaking of railroad books, I dislike those that are not presented chronologically. To me, most railroad books seem to be a hodge-podge of photos, poorly grouped or repetitious, plus some dull trivia."

He tells us that he needs a quiet place, free from disturbance, to do his best writing. First he lays out a chapter, then types a rough draft, revises it with a pencil, and retypes it. After about three or four such drafts he types a finished product. Then he shows it to someone, maybe Betty or Spencer Crump, and if it makes sense to that person he is reasonably satisfied. After the entire text has been set in type he lays out the book, page by page, grouping all pictures with the appropriate text rather than putting the best shots at the front as some publishers do, on the theory that it is easy for a reader to follow the story if the photos are kept close to the subject matter. While doing this, he listens to stereo records, preferably soft instrumental music or vocalists like Perry Como or Tony Bennett.

"As I see it," he goes on, "a railroad history should 'read like a novel,' if possible, leading the reader through an interesting series of events. I admire the giant-size Colorado books for their mass content but find them dull reading. Who cares about every tie, every spike, or other irrelevant stuff?" Changing the subject: "And diesels leave me cold. I guess I was born many years too late. I often wish that I could roll back half a century, as in the *Twilight Zone,* and go into the Sierra on a summer day 50 years ago, in the bright heyday of steam, with 20 rolls of film and my Retina Reflex camera." ●

Photograph by George Turner

Shay No. 4 is crossing Yosemite Creek on Hank's model of a 3-foot gage road.

SHOP-FABRICATED PANELIZED SWITCHES

are being used in Pennsylvania Railroad yard track, which save time and money by eliminating the assembly of component parts and ties on the site. The road's Engineering Department designed the complete layout, each including a switch panel, a connecting and closure rail panel, and frog panel. Bethlehem Steel Corp., manufactures them at its Steelton, Pa., plant.

Steve Maguire's

TRANSIT TOPICS

Stephen D. Maguire

ECHOING a suggestion made by the late Mike Quill, head of the Transport Workers Union, a New York State Senator has come out for free rides on New York City rapid transit lines. The Senator is T. Mackell, Rego Park, in Queens, one of the city's five boroughs. He says that if there were no charge for subway and "el" train rides, a vast number of motorists would park their cars outside the city and ride public transit lines into the congested areas. This, he maintains, would sharply reduce the desperate overcrowding of city streets.

And who would pay for this? According to Senator Mackell, operation could be financed by an amalgamated transit system relying on revenues from toll bridges and tunnels, plus a public subsidy, part of which the Federal Government would contribute.

That idea doesn't make sense to us; for one thing, subway and el trains are already crowded to capacity in rush hours. If rides were free, the city would have to build additional subways to handle the greatly enlarged traffic. Besides, we don't think that the nation's taxpayers would like to finance free rides in New York or anywhere else.

Another drastic suggestion comes from State Sen. Murray Schwartz, who urges that a super-subway service over Long Island Rail Road tracks be included in Mayor Lindsay's plan for unification of transportation. Murray would use LIRR tracks and stations in a subway-shuttle service with 15-cent fare. Backing this idea are the Jamaica Chamber of Commerce and the City Planning Commission.

THE TWO-YEAR test period for the Skokie Swift line of Chicago Transit Authority ended April 19th. Operation of this 5-mile, non-stop, high-speed line will be continued permanently over the former North Shore interurban tracks between Skokie, Ill., and Howard Street, Chicago. The U.S. Government paid over half the total cost of this project. In the two years there were some 3½ million riders, averaging 7,000 a day.

Oldtimers in Cincinnati will recognize these streetcars of about 25 years ago.
Elmer J. Braswell, Jr., 1581 Melrose Dr., S.W., Atlanta 10, Ga.

ALTHOUGH the cost of building the Bay Area Rapid Transit lines radiating out of San Francisco will exceed 100 million above the original estimate, the construction work is still being carried on, reports Ralph Kerchum, 4350 Bridgeview Dr., Oakland, Calif., 94602.

Apparently the cost above the $792 million figure which the voters approved will not prevent additional money from being spent, inflation or no inflation. The State of California is contractually bound to pay for the underwater tube, which presumably will cost nearer $180 million than the $133 million first anticipated. The difference is likely to be made up by more Federal aid, increased motor vehicle taxes and license fees, interest on invested and unexpended funds, and another bond issue.

One local paper has waged a constant campaign against BARTD that is described by General Manager B. R. Stokes of BARTD as "project assassination." Mr. Stokes predicted the transit district will be able to resolve all its inflationary difficulties.

ALSO in California a State Assembly committee has reached agreement on two proposed bills for this year's session of the legislature to enable Los Angeles to finance a rapid transit system. The first bill would authorize the county's Board of Supervisors to raise up to $3.9 million for one year to pay for preliminary engineering studies and a rapid transit referendum. The second bill, with voter approval, would authorize 3 specific optional methods to raise money by taxes for actual construction. The situation is worth watching.

THE GREATER BALTIMORE area in Maryland is considering plans for a $292-million rapid transit system which a consulting engineering firm has presented to the Metropolition Transit Authority. The firm proposes a network of 29 miles of rail rapid transit, with a subway loop of 7½ miles serving the central business district and eleswhere. Two radial routes would serve the northwest and northeast sections and environs.

This report rejects an all-bus system as insufficient to meet the city's needs. However, it says bus operations should be coordinated with rail transit. It points out that a good rapid transit system is not inexpensive and that while the system's revenues would pay for operating and maintenance, the construction costs would have to be met with Federal, state and city funds.

"RAILROAD rulebooks, especially old ones, make fascinating reading," writes Donald S. Robinson, Greenfield, Mass. "My favorite rule is No. 23 in the 1917 edition of the Boston Elevated Ry. book of rules which states: 'Motormen on open cars will not spit over the dasher while the car is in motion.' " He'd like to hear of other quaint rules.

EAST TROY'S municipally-owned electric freight line may come under ownership of a 30-year Milwaukeean, Jerry A. Fisher (1009 S. 47th St.), a former employee of the North Shore line, the C&NW, and the Milwaukee Road. So says Oscar H. Yaeche, 2924 S. 46th St., Milwaukee, Wisconsin.

The 7-mile trolley line was once part of the Milwaukee Electric's Burlington interurban. When abandoned, it was bought for $10,000 by the Village of East Troy, Wisc., which has been running it since 1939. In recent years the road has lost money, the losses being made up by the Village, which is eager to retain its large industries. A single express motor obtained from the Milwaukee Electric is used to haul boxcars to the interchange at Mukwonago. The line's only other equipment is a differential dump car motor.

Jerry Fisher is a transportation consultant for companies with shipping difficulties. If the voters agree, he aims to buy the trolley line and make it pay. He would institute passenger service, mostly for tourists.

ANGEL'S FLIGHT RAILWAY, a 315-foot incline line in the heart of Los Angeles, appears to have been saved once more, this time from either dismantling or removal to an unrealistic location in Griffith Park or the Hollywood Bowl. Hardly ever making money, the funicular with two counterbalanced cars painted gaudily has been a familiar method of taking travelers downtown from Bunker Hill since 1901. Fares have risen since then from 2½ to 5 cents.

The Community Redevelopment Agency that controls the line has been able to keep it going, despite a program on the Hill that saw nearly all of the homes and other buildings torn down. Mostly parking lots are left now, used by motorists who park and then ride the incline.

The CRA last year found someone willing to take over the operation. Since the Angel's Flight is primarily an elevator of less than 90 percent grade, they appealed to a vice president of the Oliver-Williams Elevator Co., Sidney Smith. Though not enthused the first time he saw it, he changed his mind after discussing the matter with his wife Lillian, who is interested in antiques.

The *Los Angeles Times* quotes Mr. Smith as saying: "I'm hooked. I've fallen in love with the old junk pile. I'll keep her running forever, even if it costs money."

A helpful aspect is a $500-per-month subsidy guaranteed him by income from the parking lots.

Scenes on the East Troy's municipally-operated railroad that runs between East Troy and Mukwonago, Wisconsin. The motive power shown here is the M-15 (below) hauling car into East Troy from the right-of-way; (above) trundling three cars.
Stephen D. Maguire, P.O. Box 51, Belmar, N.J.

NEW paint scheme is being tried on the Massachusetts Bay Transportation Authority streetcars, reports Norton Clark, Newton Heights, Mass. For many years Boston trolleys were painted orange. Now a few of them appear in gray and cream, with black striping and yellow doors, but other cars continue to come out of the paint shops in the old orange color. Three experimental paint schemes are being considered before a decision is made.

MUSEUM PIECE. Port Authority-Trans Hudson has given the St. Louis Museum of Transport at Kirkwood, Ill., its oldest remaining black car, No. 256, of the fleet originally bought for the Hudson & Manhattan line in 1909. Replacement of old cars on the PATH uptown route began in 1965. Now all 162 of the new, air-conditioned, rapid transit cars have been placed in service. PATH thus becomes the operator of the nation's first completely air-conditioned fleet of rail rapid transit cars.

PHOTOS of the Winnipeg Electric and the Winnipeg, Selkirk & Lake. Winnipeg trolleys are needed by the Upper Canada Railway Society, Box 122, Terminal A, Toronto, Ont., Can-

Trolley cars are still a popular form of mass transportation throughout Japan. These shots were made recently in Tokyo.
S. Kobayashi, 17 Shiba-Shinbori, Minatoku, Tokyo, Japan

ada, for use in a history of Winnipeg trolleys that the group is now working on. Contact Brian E. West, club president, at the above address.

Foreign Electric Lines

PARAGUAY'S last trolley route, the government-owned line at Asuncion, has officially ceased operation, writes Jan Gleysteen, 1210 Loucks Ave., Scottdale, Pa., 15683. In our April '65 issue we wrote about this operation—a single, long route with rattletrap trolleys on poorly maintained track. Although last Feb. 1 was officially the abandonment date, the trolleys kept running for more days. A Paraguayan newspaper commented "They were much more comfortable than those bouncing buses filled beyond capacity."

OSAKA trolley lines in Japan may be gone when the 1970 Exposition opens there, in the interest of reducing traffic congestion, states J. Wallace Higgins, 1166 Fiske St., Pacific Palisades, Calif. 90272. Almost half of the original system was closed in 1960 when the Osaka subway was opened.

More subway-building is planned in that city of 3 million, second largest in Japan.

Tokyo's large traction system has had no abandonments in several years, even though city traffic is almost impossible in rush hours. Wally Higgins says that the outer portion of the Shimura street line 18/41 has been closed to permit construction of a new subway line about 20 miles long.

ROME is still building its new subway. An archaeologist goes along with workmen digging subway tunnels in the Italian capital. When the diggers hit ancient brick or stone instead of soil, the expert decides whether or not the foundations can be saved. In this way, subway lines have beeen rerouted around valuable archeological areas.

RHODESIA'S only tramway, a two-foot-gage line, abandoned in 1957, was *human*-powered, according to a recent issue of *Modern Tramway*, monthly publication of the Light Railway Transport League, 2 Dalmally Rd., Addiscombe, Croydon, Surrey, England. The line was built by Rhodesian Railways at its Victoria Falls Hotel in 1920 to transport visitors to the falls. Before that, rickshaws had been used. The little tram cars were open, with side seats. From 2 to 4 Africans pushed each one along the track. One such car is preserved at the Rhodes-Livingstone Museum in Livingstone, Rhodesia.

New Publications

Tramways of the World, by J. Joyce, 88 pages 6x9″, illustrated, hard cover binding, is available at $8 from Leisure Time Books, P.O. Box 634, New Rochelle, N.Y. Although the British tram (trolley as we knew it) is almost extinct, this British book covers some places where trolleys still run. Twenty different locations are covered, from the world's greatest network of tram lines centered around Dusseldorf, Germany, to the Belgian coastal tramways, Moscow trolleys, Karachi diesel streetcars, etc. All lines in the 20 chapters are covered photographically, with several color illustrations.

To us the most interesting part deals with restaurant trolley cars, as follows:

> You will find in Dusseldorf the most unlikely item of tramway rooling stock—a restaurant car. The idea of being able to sit at a table and take soup, sausage or coffee while traveling along the street in a tram seems the height of incongruity. Yet you can do just that if you ride the interurban route from Dusseldorf to Duisburg.
>
> Known as the D-Bahn, this interurban uses cars owned by the undertakings of the two towns it servs, but they are distinguished from the more mundane vehicles by having red bands instead of the usual color. These great three-section 'artics' have a small kitchen and refreshment section in their middle part, and here the hungry traveler can eat en route.

Trolleys to Salisbury Beach, by O.R. Cummings, is the second in a series of histories of the Massachusetts, Northeastern Street Ry. This issue covers lines from Haverhill through Merrimac, Amesbury, and Salisbury, Mass., to Hampton Beach, N.H. Our May issue erroneously reported that only a few copies were left. However copies are still available at $2.50 from Mr. Cummings, 105 Theresa Ct., Manchester, N.H. 03103.

Driving Wheels

by ROCKWOOD T. ROBERTS

Photograph by Frederick De Vries

WHILE putting on my overalls for another day's work as an Interstate Commerce Commission inspector, one spring morning at the Central Vermont enginehouse in St. Albans, Vermont, I glanced out the window of the foreman's office at a big 4-8-2 passenger-hauler, No. 602. She had just been through the shops for class repairs and her jacket reflected the rising sun. In the surrounding hills, sugar maples had awakened from a winter's sleep and even in the enginehouse I could smell the scent of boiling sap. Happily I whistled a gay tune.

Then an engineer named MacDonald came in with a tale of woe. Mac handled *The Montrealer*, one of the CV's crack trains, between New York and Canada. Seldom was his 12-car Pullman train off schedule, but the trip he had just come in from was a disappointment.

"I hate to barge in on you so early, Rock," he said, "but the 602 is giving me trouble. Just can't figure it out."

I smiled. "Aw, come on now, Mac, what's wrong? From here she looks like a good job."

"Like hell," he said. "She was in better shape when she went into the shops seven weeks ago."

The engine had been shopped after running nearly 150,000 miles, had been overhauled completely, and now, as far as I could determine by looking at it, was as good as new. The paint job and large white-trimmed tires of this well-groomed giant reminded you of a race horse that had just won a trophy. Of all the passenger power I have ever run as an engineer and later inspected for the ICC, this type had no equal. She was equipped with the latest stoker, valve pilot, speed recorder, precision reverse gear, and Walschaert valve motion. Those 4-8-2's performed so well that the enginemen's reports listed very few defects, just an occasional steam leak, rod pound, or something of the kind. They were noted for fine riding qualities and their ability to haul trains of up to 15 cars on a fast schedule.

I knew Engineer MacDonald well and often visited his home. At first I thought he was joking when he said the 602 had fallen down on the job, and joshed him about it. But his face reddened while his eyes, tired from a long night's grind on the turnaround run, glinted with irritation.

"I'm not kidding," he said. "I've been running this power since the first day it was delivered and I've never seen anything like this. Just out of the shop on her first trip and I'm afraid to run her fast. I lost 12 minutes coming up from the Junction. Something's wrong."

"How does she ride?" I asked.

"Like a wild broncho on straight track," he shot back. "On curves she tries to climb the rails. I tell you, for the first time in my life I was scared."

He was holding the report he had made out. I took it and read: "Engine rides very rough. Unsafe to go over 40 miles an hour." The 40 was underlined. I dropped the report on the foreman's desk and told Mac we'd correct the trouble.

"Go home and get your rest," I said. "Before this engine makes another trip I'll guarantee she'll be in A-1 shape."

A Federal inspector often runs into such snags and usually clears them up quickly. Most of the men who enter this service are in their early thirties, with at least ten years' experience as an engineman, machinist, electrician, or boilermaker. After being qualified by a stringent exam and receiving an appointment, a new ICC inspector is given the usual indoctrination by a series of lectures at the Washington office. He is then sent out for 90 days of work with many experienced inspectors in various parts of the country. During this training period he has the opportunity to confer with mechanical officials of all levels, surveying enginehouses and power on routine inspections, visiting shops, and investigating accidents.

Thus he acquires a general knowledge of his many duties, so that when he is assigned to one of the 50 districts he can handle whatever jobs come up, but it takes several years to season an inspector.

When this hard-riding problem was thrown in my lap at St. Albans, near the Canadian border, I had served five or six years as an inspector. I had left an engineman's job on the Boston & Albany and, after the training period, received my first assignment at Omaha, Nebraska. There the field was broad, for the Union Pacific was getting ready to scrap their three-cylinder engines and get into the "Big Boy" Mallet class. They also had acquired a fleet of heavy passenger locomotives with solid cast-steel frames and cylinders and roller-bearing driving boxes.

I also had experience with the Illinois Central, the Milwaukee Road, and North Western, all of which were going modern, and with heavy Texas & Pacific power on the Great Western, which was maintained at the Oelwein Shops. With these years behind me, Mac's rough-riding 602 should present no problem. At least, I thought so that fine spring morning.

Before detailing the problem I will emphasize one point. The ICC has a stringent rule, violations of which are punishable by fine, that a daily inspection must be made and a report filed. This report must list all the defects found and then repaired, before the

engine is again dispatched. One of the inspector's first duties is to check the files to see that all the work is being signed for and no defects are repeated on the same engine.

At St. Albans the foreman knew he could not legally dispatch the 602 without stating what work had been performed on her and so he showed some concern. The 4-8-2 assigned to this important passenger run was badly needed. He scratched his balding head and said, "I wish I knew what's wrong."

"After the fire is cleaned," I instructed him, "have your hostler put her over a pit. With everything spick and span, right out of the shop, we shouldn't have much trouble in locating the defect. First we'll check her for lateral, the main frame, maybe a stuck driving-box wedge. It will show up, you can be sure"

But I soon learned otherwise. As the engine had just come in from a run, we checked the driving boxes and rods for excessive heatage, and found none. We checked the flanges on all wheels and noticed no grinding or galling. All tires had perfect contours with sharp tool marks. Underneath every moving part we inspected thoroughly. The wheels were gaged back to back and were found to be within the ICC regulations of 53 to 53⅜ inches. Every wheel set on the rails with proper clearances between throat of flanges and inside faces of rails.

Sometimes an old derailment will spring the main frame, thereby throwing the engine truck or trailer wheels out of alignment but no such distortion was found. In fact, a solid hour of intensive checking revealed nothing important. You might have thought the 602 had just been turned out by Alco. So the foreman and I returned to the office in a quandary. The superintendent, H. T. Nowell, a handsome six-footer with graying blonde hair, came in to learn how the engine had performed on her initial trip and was dumfounded at what we told him.

"I don't believe it," he snapped in irritation. "We spent plenty of money on that overhaul and did a good job. MacDonald may be one of our best engineers but I think he must have had a bad night."

I handed Nowell the report, and after he had read it I said: "You know what that means. He's got it on the record that the engine is unsafe."

The official considered the matter. "It can't be that serious. You looked the engine over and found nothing wrong. If it's all right with you, Mr. Roberts, I'll order the road foreman to ride the job and tomorrow morning we'll see what he comes up with."

"A good idea," I said. "Let's all be here early for his report."

But the following day gloom still overhung the place. The manner in which the two enginemen who had tried out the 602 hastened along the inbound track after leaving their 4-8-2 under the coal chute foretold the story. With tight lips and a tense expression the road foreman gave us the details.

"This has me beat," he said. "I just can't figure it out. She tries to climb the outside rail on curves and, believe me, 40 miles an hour *is* too fast for her."

We went into a huddle in the foreman's office. For a time we sat in silence, looking at each other. The New York Central had recently received some heavy freight engines from Lima with tandem rods that were kinking the rails, due to faulty counterbalancing. This fact led me to ask, "When was the last time you checked your rod weights and balancing on this class of power?"

The super thought a moment. "We made some changes on our pistons and bushings about two years ago," he said, "and we made a check. We didn't have to make any changes in our counterbalance weights and we have never had any trouble with rough riding. If we don't find anything wrong today I'll take the engine back to the shop and drop all the wheels and make certain that their weights are correct."

"Fine," I said. "We'll go over the running and driving gear again. I'm leaving tonight, but when you have everything ready send me a wire and I'll come right back. One thing is certain," I emphasized, "we're not running any power with a report like this on file."

Nowell jumped to his own defense. "I've never taken any chances since coming here and I'm not starting now."

His words rang true, for the Central Vermont had an excellent record. During all the years since 1912, when Congress enacted the Locomotive Inspection Act, this system had had but one reportable accident. That one I handled myself at Brattleboro, when a main air reservoir blew up.

As we had expected, another thorough inspection disclosed nothing amiss with the 602, so arrangements were made to tear all of her parts down, which meant both time and expense.

It is not hard to balance the armature of a traction motor on a diesel, or an automobile wheel, but with a reciprocating steam engine the problem is more difficult. With drivers having only side rods on pins the adjustment also is simple, but on the main driver you meet with complications.

The use of pistons, crossheads, and other moving parts to turn wheels sets up numerous forces that interfere with smooth running. At extremely high speeds, at the end of each stroke, weights on the main pin must come to a dead stop and reverse the motion, only

to repeat this cycle. With rods weighing more than a half-ton we wonder that parts are not torn asunder. Following the recognized laws of motion, when the pin is on the top quarter, the spinning force attempts to raise the wheel on the rails, while at the bottom quarter of the stroke the blow is like a sledge. Because of this there must be a counterbalance cast in between the spokes opposite each pin.

To calculate the weights on the main pin you must consider not only that portion of the side rods but also approximately half of the main rod, as the forward portion rests on the wrist pin and crosshead. Besides this, resistance is encountered on the guides and at the pistons in the cylinders, so you need accurate slide-rule calculations to get easy riding and a minimum of stress on the rails.

Unless you are familiar with wheel construction you might think, from observation, that counterbalances are cast solid. They aren't. Even though the manufacturer knows what the weight should be, he makes them hollow so that molten lead can be poured into the cavity for absolute correctness. The opening is at the wheel rim under the tire fit. After years of service the lead loosens, gradually powders away, and throws the forces out of equilibrium.

Almost a week after I had gone away from St. Albans word came that all was in readiness at the shops. So I returned, only to find the officials more depressed than before. Every part of the 602 had been measured, weighed, and found up to blueprint standards. They even had checked each pin to determine if it was properly quartered. Pins must be set exactly 90 degrees opposite one another—that is, all pins on the right side are set ahead of those on the left, a design to prevent an engine from ever getting on "dead center" as well as to facilitate smooth riding.

It is strange sometimes how the mind functions. An idea may flash into two brains at the same instant. While we were grouped disconsolately about the wheels near the drop-pit, kicking away small pieces of metal beneath our feet, the rest of the shop bustled with activity. In the far corner a trip-hammer made a tremendous din as the boiler gang riveted plates. Around us, lathes sang with the boring of brass bushings.

Close to the wall could be heard the chatter of the big wheel lathe as it chewed away on tires. Suddenly, with a sharp, piercing shriek, the tool struck a spot on the tire that had been tempered by brakeshoe heatage. Superintendent Nowell turned quickly and so did I. Our faces brightened.

I said, "I wonder if you are thinking the same thing I am."

"Very likely," said the official, turning to his foreman. "Go get the large calipers."

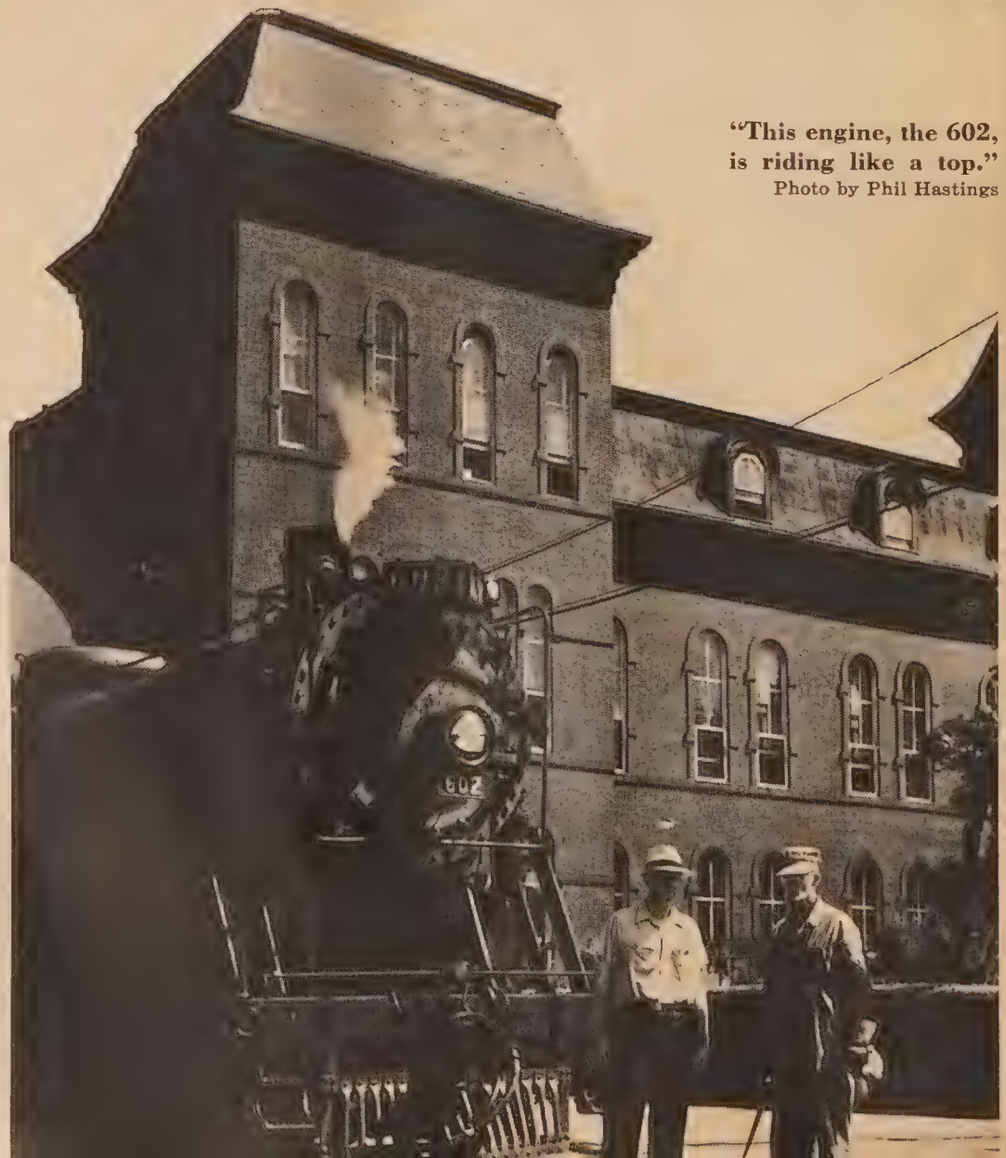
The machining of driving-wheel tires, heaviest job in the shop, is done on a special Niles wheel lathe. The huge wheels are hoisted onto the centers of the machine and turned by powerful electric motors at both ends. Cutting off the metal from tires takes several days for a set of four. A rough chip must bring the wheels to proper size before you use the final forming tool to give the tire the correct contour. The operator on this task must be highly skilled. Before starting on a job he gages all of the wheels, for they are badly worn after months of service, many having small flat spots. The smallest wheel determines the size to which all must be turned.

The ICC has stringent rules for driving wheels. One rule states that when all locomotive tires are turned or when new ones are applied, the diameter of wheels on the same axle or in the same driving-wheel base shall not vary more than 3/32 of an inch. The reason for this is plain: if one wheel is smaller than another it makes more revolutions per mile. If size varies on the same axle the tendency is not to travel in a straight line but to veer off to right or left. At high speeds the action is to climb the rail.

There were some red faces on the Central Vermont that day when the diameters were measured. On the foremost pair of wheels the right one had been turned about ⅜ of an inch too small. As the lathe is built with a long bar for gaging both wheels on an axle it appears impossible to make an error; but, for the first time in the history of those Central Vermont shops, it had been done. Instead of using time and effort to turn all the other tires down to the small size to make all diameters conform, they removed the undercut one and shrunk on another of the correct size.

A month later, on another inspection trip to St. Albans, I found Engineer MacDonald driving home in his car as I entered the shops. A hundred yards from me he stopped, shoved an arm out the window, and made a circle with his thumb and forefinger, and called out: "She rides like a top now."

The sweet smell of Vermont maple syrup had left the air and the day was starting with a slight drizzle but I knew it was a day to be enjoyed. A mystery had been solved. ●



"This engine, the 602, is riding like a top."
Photo by Phil Hastings

INFORMATION BOOTH

Locomotives leased by Lehigh & Hudson River Railroad from the Richmond, Fredericksburg & Potomac haul 70-car freight train NE-3 through Andover, New Jersey, underneath the Blairstown cutoff of the Erie-Lackawanna Railroad (April 14, 1966).
Robert A. Pennisi (E-L ticket agent at Summit, N.J.), 15 Curtis St., Dover, N.J. 07801

ASK BARBARA: Railroad questions are answered here by our research expert—as many as space permits. Top priority is given to subjects of general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York, N. Y. 10017. No replies are sent by mail.

1 *Do any Louisiana sugar plantations still have steam railroads?*

No, reports Wilbur T. Golson, 5465 Washington Ave., Baton Rouge, La., who covered the subject with an article in our Aug. '63 issue. The only two which still have railroads are Westfield Factory, Paincourtville, 30″ gage, with a Davenport diesel and a Whitcomb gas-powered switcher, and the Lula Plantation, Belle Rose, 36″ gage, with 3 gas-repowered 0-4-0's rebuilt from Whitecomb-Davenport diesels. But standard-gage switchers owned by several big plantations handle the processing of cane by-products for Celotex Corp. while the Cinclare Central Factory at Cinclare hauls cane over Texas & Pacific tracks with a 44-ton GE diesel formerly belonging to US Navy. The line also has its own track. Many Louisiana sugarcane lines have switching operations.

2 *Why are New York City officials so reluctant to raise their 15¢ subway, elevated, and bus fare, which I understand is the lowest in the country? This matter is vital because the city's transit lines have always been in the red. The loss was aggravated by the costly strike last January which gave New York City Transit Authority employes higher wages than are paid to transit workers anywhere else.*

You are right. But the nation's largest metropolis also has the nation's worst traffic jams, especially in rush hours. If NYCTA were to boost its basic fare, many more private automobiles would clog the congested streets. At the same time, fewer people would ride subways, "els," and buses, thus offsetting to some extent the revenue gains expected from a higher fare. With streets more congested, the number of traffic accidents would go up, there would be a tendency to discourage out-of-towners from visiting the big city, and local business would suffer.

On the other hand, New York's transit facilities in rush hours are pack-jammed right now. Any move to slim down the desperate overcrowding on the public vehicles would be at least a minor blessing—but not at the price of worse traffic jams. There are just too many people in and around New York. This is the real reason why the city thus far has kept its 15¢ fare. But that isn't the nation's lowest. New Orleans has a 10¢ streetcar and bus fare.

Maybe some reader can tell us of other low transit fares.

3 *What happened to the locomotive plant of H. K. Porter & Co., Pittsburgh, Pa.?*

Porter stopped building engines around 1950, selling the business to Davenport-Besler Corp., Davenport, Iowa. A few years later D-B sold out to the Canadian Locomotive Co. Ltd., 140 Ontario St., Kingston, Ont., Canada. This sale included all records, drawings, and designs. The Porter story was told in the April, 1960, issue of a magazine called *Steam Locomotives*, published by William S. Young, P.O. Box 158, Susquehanna, Pa. (Bill was No. 23 in our "Interesting Railfans" series.)

4 *Where can I get detailed information on locomotive bells?*

A long illustrated feature on that subject, written by Freeman Hubbard, appeared in Sept. '49 *Railroad Magazine*. Issues that old are not available in our office but could probably be obtained from Arnold Joseph (see *Switch List*).

5 *What is a Eurailpass?*

This 21-day ticket, costing $99, permits visitors to travel first class on railroads in 13 western European countries; or it may be had with a one-month limit for $130, 2 months for $175, and 3 months, $205. In some cases, the ticket is honored also for side excursion travel on buses and boats. Participating countries are Austria, Belgium, Denmark, France, Germany, Holland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, and Switzerland.

Not many of these burnished the rails: a Rock Island steam car, built by Alco.
Photograph from CRI&P archives

6 *Define "automatic reducing valve."*

It is a high-speed locomotive brake valve attached to the brake cylinder to bleed automatically the pressure down to 60 pounds after an emergency application, when the pressure in the cylinder rises to 85 pounds or more. The triangular port gives a graduated reduction. It also prevents the brake cylinder pressure from exceeding 60 pounds in a service application. The triangular port then gives a wide opening.

7 *How many miles of railroad does Russia have, aside from its purely industrial lines?*

Only 80,700, despite the country's vast area, as compared with 230,000 miles in the United States. However, Soviet Union railroads are more heavily utilized per mile than are those in America and their passenger service is expanding rather than diminishing. Experimental runs of Russian passenger trains are credited with making 130 miles per hour. The Soviet Union has not yet gone into the piggyback freight business but is showing much interest in it.

Russia has just begun building a new 5,000-mile line across Siberia, 1,000 miles shorter than the present route. It is expected to take 15 or 20 years to complete.

8 *Tell me about early installations of centralized traffic control.*

First CTC installation of which we can find a record was made in 1927 by General Railway Signal Co. on the New York Central between Stanley and Berwick, Ohio. The earliest dual-control switch machines, which provided for either hand or electric operation, were introduced on that installation. In 1928 the Canadian Pacific began using CTC with semaphore signals.

The first extensive installation of CTC employing coded transmission of controls and indications, as developed by Union Switch & Signal Co., was placed in service in 1928 on the Pere Marquette (now Chesapeake & Ohio), extending from Mt. Morris to Bridgeport, Mich., 19.8 miles of single track. Automatic indication of the passsage of trains was provided at 10 points. The code line consisted of two line wires of open construction, and selectors controlled the functions.

Later that year the Boston & Maine installed color light signals in CTC territory. And in 1929 the Burlington introduced the all-relay CTC code system as a two-wire, 12-station, time-code setup between Waverly and Greenwood, Neb. Series-connected line circuits were used.

In 1939 a 4-indication, 4-speed coded, continuous, train control system was installed on suburban cars of the Key System, Southern Pacific, and Sacramento Northern roads operating over the San Francisco-Oakland bay bridge in California. The system was designed to handle 10-car multiple-unit trains operating on a one-minute headway. GRS and US&S manufactured the equipment.

In 1940 the Pennsy installed a centralized traffic control system between Harmony and Effingham, Ill. In 1942 US

Food bar coach is the latest wrinkle in C&O-B&O passenger service. An attendant known as a "foodmaster" has charge of preparing and serving the viands.

Eagle Picher's 1632, an ex-Frisco 2-10-0, is displayed in Ottawa, Kansas, outside the old Depot Museum. She belongs to the Smoky Hill Railway & Historical Society, whose members hope to restore her to operating condition for fantrips.
Ross M. Davidson, 1704 W. 24th St., Lawrence, Kansas

&S coded carrier control system for use on multiple-line CTC installation was tested successfully on the Seaboard Air Line and later installed between Raleigh, N.C., and Alberta, Va., to control the territory between Alberta and Richmond, Va., from the dispatcher's office at Raleigh. In 1943 the Union Pacific placed 171 miles of CTC in service between Las Vegas, and Yermo, Calif.

The earliest CTC system on the Western Pacific, installed in 1945, was equipped to receive indications on track motor cars direct from the track, employing steady energy normally in the track circuits and coded energy for the clearing of signals, and transmitting indications to the motor cars. Later that year the Santa Fe demonstrated the feasibility of CTC operation over long distances on existing railroad communication lines. Test was made over 2,200 miles of telegraph circuit.

In 1946 the Pennsy demonstrated the feasibility of CTC operation over commercial communication circuits, including beamed radio. Test was made over about 1,130 miles of Western Union carrier telegraph circuit, including 90 miles of beamed radio—the first time beamed radio was used for this purpose.

Also in 1946, the first GRS carrier link control was applied to CTC line circuits between McCook and Hastings, Neb., on the Burlington.

In 1949 Union Pacific installed a 325-mile CTC system between Salt Lake City, Utah, and Caliente, Nev., the entire territory being controlled by two machines located in Salt Lake City. Since then CTC has been installed on many thousands of miles of major railroads in the U.S. and Canada.

9 *Do you have the words of an old poem entitled "Wanderlust"?*

Yes, but all we know of the author is that he was J.L.M. of Cleveland. Here is the poem:

Were you ever cold and hungry,
Not a dry thread on your back;
It was raining, it was sleeting—
You were hiding in the shack?
You were clinging to the bumpers
With your clothes wet thru and thru;
You were shivering and were shaking
With the rags stuck tight to you.

But you thought of those hot biscuits
That your mother used to bake
And the good old steamin' coffee
She sure knew how to make,
Till your Gypsy blood commanded
In a voice you must obey,
And you left your homey comforts
Just to travel far away.

Old man wanderlust's a tyrant;
When he issues a command
We must ramble, ramble, ramble
To some far-off distant land.
If we're rich we ride the cushions,
If we're poor we hop a freight,
But the same still silent torment
Keep a-pushing toward our fate.

10 *What are the British Railways policies regarding headlights, bells, and whistles on steam locomotives?*

We asked John Drayton, BR engineer, 13 Sycamore Rd., Griffithstown, Pontypool, Monmouthshire, England.

"Electric headlights as known in the U.S.A. are not fitted to our engines," he writes. "We carry electric train-reporting number-boxes on main-line diesel locos and on some diesel multiple-unit passenger cars. If the number gear is working it should tell the class of train, speed, etc., and to which region it is going. But this does not apply to the entire system. Our Southern Region, which runs more trains per day than any other commuter line on earth (even more than Long Island Rail Road in the U.S.A.) uses its own rather complicated system of nomenclature, a system that works well into and out of the various London terminals.

"When you speak of headlights that illumine the way for the driver (engineer) to pick out objects on the track ahead, the answer is No, we do not have them. Nor is there anything to indicate a change in official policy on this score. There are grave objections to the use of headlights. On multi-tracked routes carrying all kinds of trains, headlights might conflict, one against the other. On single-tracked routes the idea would probably work well. Personally, I wouldn't object to a searchlight that I could switch on and off at will if I suspected danger ahead at night.

"Very few British locomotives have bells. You'll find them on the Weymouth Quay line which runs from Weymouth railway station along the public streets for a mile or so to the wharf to link up with boat services and at Swansea,

where small bells are attached to little 0-4-0 switchers around the docks. You can find them also at Liverpool, etc.

"As for whistles, our small yard goats use air whistles on both steam and diesel locos that, when blown, remind you of the *toot-toot* of peanut vendors. Our main-line diesels are equipped with tri-tone air horns. I believe that the very first locomotive-type whistle was tried out some 135 years ago on a works boiler at Merthyr Tydfil in South Wales and was copied by railway managements in Great Britain and elsewhere. The original 1831 whistle can still be seen in a Merthyr Tydfil museum not far from my home.

"My own experience on Great Western steamers began in 1923, when each loco carried *two* whistles, one tenor and the other baritone. The small shrill tone was used for ordinary signaling, calling the helper engine in the rear to open out, telling the operator that we were ready, warning of approach, entering and leaving tunnels, etc. The large whistle, available for emergency purposes, was known as the brake whistle. While many of the former independent British lines such as the Great Northern, Great Central, and South Western used *two* steam whistles, the Great Western alone continued to use them till the end of its steam power.

"When I say 'end' I mean in our part of the country, which is dieselized. Elsewhere on British Railways there are still more than 2,900 active steam locos."

11 *Is there a record of how much money Illinois Central paid to clear up the wreckage in which Casey Jones died?*

Yes. Clearing up near Vaughan, Miss., in May, 1900 cost the railroad $3,323.75. However, this sum includes $1,396.25 spent to rebuild Casey's engine, No. 382, which was damaged badly by running into the rear of a freight train that had failed to enter a siding in time. That engine, was put back into service under another number, 212 (later 2012, then 5012).

Simeon T. Webb, Casey's fireman, was persuaded by an IC claim agent to accept $5 in full payment of any claim against the railroad. The same agent paid $23 for serious bruises sustained by an express messenger on the *Cannonball Express* and $1 apiece to the two postal clerks and a lady passenger for minor injuries.

The IC investigation "whitewashed" the freight crew and laid all blame for the wreck on the dead engineer, a common practice in those days. Sim Webb, being a Negro in Mississippi, did not dare at the time to contradict the freight crew's story that they had put out a flagman and laid torpedoes on the rails. But many years after the last survivor of that crew had died, Sim reversed the testimony he had been forced to give at the official hearing.

Casey's widow did not get any money from the IC nor from the *Casey Jones* song. However, she collected $3,000 on two policies with the Mutual Life & Accident Insurance Association of the Brotherhood of Locomotive Engineers. This sum helped Mrs. Jones to turn her home at Jackson, Tenn., into a railroad man's boarding house, which provided an income for raising her three children. Your editor, Freeman Hubbard, visited her there in 1946 and she sold him a hard-cover biography of her husband, which she autographed. After her death the old frame house was converted into a museum.

Running Extra

We stated in our April department that we didn't know of any ball signals in use today. However, two are still being operated in northern New Hampshire at crossings of the Boston & Maine and Maine Central, says Don S. Robinson, trainmaster and rules examiner, Green Mountain Railroad, Chester, Vt. 05144. One at Whitefield is only a few feet from U.S. Highway 3. The other is located nearby at Waumbek Jct., but to reach it you have to walk almost two miles along the tracks, The signals are well maintained and provide a safe and efficient interlocking, according to Alden H. Dreyer, B&M spare operator and train dispatcher, RFD, Country Rd., Deerfield, Mass., who sends us this item regarding them in a current B&M employees timetable:

> One ball or one red light will allow trains on the Boston & Maine Railroad to pass over Maine Central Railroad track. Two balls or two red lights will allow trains on the Maine Central Railroad to pass over Boston & Maine Railroad track. All trains and engines will stop 500 feet from Maine Central track.

Item 15 in April issue is correct up to the point where it states, "Locomotives have never carried blue or red flags in the usual places on the smokebox." The word "never" is incorrect, according to William T. Church, Missouri Pacific conductor, 1011 W. 52nd St., North Little Rock, Ark. 72118, who was introduced to *Railroad Magazine* many years ago by his father and his grandfather, both conductors. He quotes No. 13 from the General Rules of the St. Louis & Iron Mountain (now MP), effective June 29, 1873:

> Red signals displayed on the front end of an engine indicate that a train or engine is following under such red signals and has precisely the same

Donald A. Robinson, 408 Davis St., Greenfield, Mass.

Whitefield, N.H.: old highball signal is still in use. We see Maine Central extra 565 west (in middle) and B&M freight.

rights as the train carrying the signals. All engines carrying signals for following trains must display two red flags by day and two red lights by night. No train or engine will carry red flags or red lights without instructions from the superintendent or the train dispatchers.

Don Robinson cites the following rules and regulations of the Fitchburg Railroad, Fitchburg Division, effective Dec. 9, 1879:

When two red signals are displayed at the same time on an engine, no regular, special, or extra train must follow the train carrying the signals until after the passage of the extra train or engine thus signalled.

A red flag by day or a red light by night exhibited on the forward corner of an engine indicates that an extra train is to follow within fifteen minutes from starting place, and arrive within thirty minutes at the point where the signal is taken off.

A blue flag by day, or blue light at night, borne on the front of an engine, indicates the engine or train bearing such flag or light will, after reaching its destination, immediately return to the point from which it started, keeping out of the way of all other trains.

Two flags or two lights, namely, a red or white flag and a blue flag by day, or a red or white light and a blue light at night, borne on the front of an engine, indicate that an extra train or engine will follow; which extra, after reaching its destination, will immediately return to the point from which it started, keeping out of the way of all other trains.

Don adds this to item 18 April issue: "Although not required to do so, engineers often dim the headlight when running on trackage which closely parallels the highway—so long as it does not interfere with safe operation—although very few motorists return the courtesy."

Brief histories of the Eastern Ry. of Minnesota and the Minneapolis Western are wanted by Wayne Scott, 2036 S. Dakota Ave., Sioux Falls, S.D.

Is there an authority on brakes who will answer Harry J. Wagner III, 7521 Rudderow Ave., Merchantville, N.J. 08109? "I understand that in the late 1930's all American railroads had to adopt the AB brake system and were given two years after the ICC issued the order to convert all their interchange equipment from the K to the AB system," he writes. "Recently I have counted 12 different cars in regular service with upright brake wheels. To me the upright brake wheel indicates the old K system. Will some reader please explain?"

Harry Wagner has been watching track relocation in his area and wonders why new switches being installed there have no guard rails and thus are unsuitable for most locomotives. He says they resemble the old streetcar type switches. Answer: maybe the track he refers to is part of the rapid transit line that will link his area with Philadelphia. Harry also asks, "What is a scoop?" That is a common word for the coalburning locomotive fireman's shovel. Also, some steam locomotives were equipped with a device which scooped up water from track pans while the train was running.

Finally, he modifies our statement (in April issue) that the Atlantic City Railroad is now part of the Reading. He points out correctly that it is really part of the Pennsylvania-Reading Seashore Lines, in which, of course, the Reading has a financial interest.

Answering a query: the Wellesville, Addison & Galeton was nicknamed "the Sole Leather Line" because its principal source of on-line traffic was a tannery at Elkland, Pa., writes O. W. Brooks, Box 187, Emporium, Pa.

Doug Kocher, Winamac, Ind., wants a list of all U.S. narrow-gage lines today and miles of track. That information, except for industrial shortlines, is embodied in our May feature by Frank Donovan, "Put Steam in Your Vacation."

"How much tonnage could be lifted by the various types of big hooks used by the railroads in steam days and what was the weight of the cranes themselves?" asks C. B. Henwood, 621 Teddy Ave., Kellogg, Idaho 83837. (His signature is hard to read; we hope we guessed it right. In such cases readers should pen-print names.)

Doug Kocrer, Winamac, Ind., wants brief histories and rosters of the Nevada Central and Florence & Cripple Creek.

"Five railroads intersect at the same spot in Griffith, Ind., and the action is terrific for train watchers," writes Don Dover, 10890 Lemarie Dr., Cincinnati, Ohio 45241. "Will some reader please list locations where at least 4 railroads intersect?"

"I am gathering info. and pix for a book on the old St. Louis & Iron Mountain (now Missouri Pacific)," writes Kenneth L. Bird, 520 Susan Rd., St. Louis, Mo. 63129, "and I'd like to hear from oldtimers and others who can help. Most of all I need anecdotes, personality material, and photos."

We printed an item about Mrs. Ruth Thompson, now age 103, who had two sons working for the Atlantic Coast Line, and we asked, "Is she the oldest mother of railroaders in this country?" Says S. M. Arnold, Sparta, Tenn., a retired station agent: "Mrs. Nancy Henry, who died last November at age 106, had a great grandson, Bill Henry, a retired Louisville & Nashville lineman."

North America's third longest railroad tunnel is the Canadian Pacific's Connaught, 5 miles, 39 feet—not the Hoosac as our April department stated. This correction comes from Edward Mahoney, 9417 W. 64th Way, Arvada, Colo. 80002. "I've traveled by train through the Connaught Tunnel, beneath Rogers Pass," he writes, "and hiked to the top on the old grade. Incidentally, I've also been through the Cascade, Moffat, and Hoosac tunnels, the Hoosac being the *fourth* longest on our continent."

Who can tell us which are America's three oldest railroad stations?

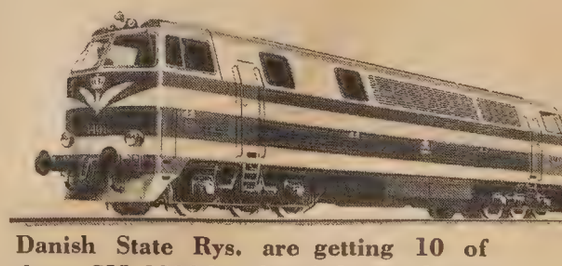
Wanted by Bill Jernstrom, 822 Pelham Dr., Fort Wayne, Ind. 46805. information on W. E. Woodard, famed designer of long ago at Lima Locomotive Works.

Fred Straley's query (May issue) is answered by Lawrence Stalter, 32 W. Park Ave., Park Ridge, N. J.: "Erie steam engine 2535 was named for Richard M. Shane and No. 2913 for Wm. R. Shade. I have no record of the *Wm. C. Dunn.*"

"I understand that 65 years ago Staten Island Rapid Transit passenger trains ran between St. George, Staten Island, and Dunellen, N. J., connecting with B&O trains at Plainfield, N. J.," writes Warren B. Crater, 270 W. Colfax Ave., Roselle Park, N. J. 07204. "Who can tell me about this?"

Details on a cornfield meet between a New Haven milk train and a snowplow Feb. 3, 1898, a mile north of Marlboro Jct., Mass., are wanted by F. E. Grout, 37 Concord St., Ashland, Mass. 07121.

Lake Shore & Michigan Southern photos, timetables, books, train orders, tickets, clippings, etc., are wanted for a book being written by Robert H. Lorenz, 1939 Whittaker Dr., Fremont, Ohio 43420, and Bob Hess, Rte. 5, Box 80, Fleminton, N. J. 08822. Bob says they buy items outright or will copy them and return them to the owners. In each case they will print a credit in the book.



Danish State Rys. are getting 10 of these GM 3300-hp diesel-electric locos, designed by NOHAB in Sweden and more powerful than those already running on Danish lines, which still operate quite a number of steamers.

Chicago, Milwaukee, St. Paul & Pacific Railroad

Locomotive roster compiled by Sy Reich

RR. Class	Road Numbers	Pre-1960 Road Nos.	HP	Builder	Builder's Model	Wheel Arrangement	Tractive Effort	Weight	Date	Notes
20FP	5A-9A, 10A, B-12A, B	5A-9A, 10A, B-12A, B	2000	FM-GE	ALT 200.3	A1A-A1A	55,600	327,000	1946-7	1, 2
20FP	5B-9B	5B-9B	2000	FM-GE	ALT 200.3	A1A-A1A	55,600	327,000	1946-7	1
20AP	14A, B (1st)	14A, B (1st)	2000	Alco-GE	PA-1	A1A-A1A	55,000	324,500	1947	1
20FP	13A, B-14A, B (2nd)	13A, B-14A, B (2nd)	2000	FM-GE	ALT 100.3	A1A-A1A	55,300	324,600	1947	1, 3
20EP	15A, B	15A, B	2000	GM-EMD	E6A	A1A-A1A	52,929	314,565	1941	1
20EP	16A, B-20A, B	16A, B-20A, B	2000	GM-EMD	E7A	A1A-A1A	54,658	324,380	1946	1
20FP	21A, B-22A, B	21A, B-22A, B	2000	FM-GE	ALT 100.3	A1A-A1A	55,300	324,600	1947	1, 3
16FF	23A, C-28A, C	23A, C-28A, C	1600	FM	CFA 16-4	B-B	42,800	257,100	1951	
16FF	23B-28B	23B-28B	1600	FM	CFB 16-4	B-B	42,800	253,300	1951	
24EP	30A, C-35A, C	200A, C-205A, C	2400	GM-EMD	E9A	A1A-A1A	23,100	335,150	1956	
24EP	30B-35B	200B-205B	2400	GM-EMD	E9B	A1A-A1A	23,100	335,360	1956	
24EP	36A, C-38A, C	———	2400	GM-EMD	E9A	A1A-A1A	23,100	340,000	1961	
13.5EF	———	35A, D-39A, D	1350	GM-EMD	FTA	B-B	56,700	226,790	1945	1
13.5EF	———	35B, C-39B, C	1350	GM-EMD	FTB	B-B	56,110	224,450	1945	1
13.5EF	———	40A, D	1350	GM-EMD	FTA	B-B	56,290	225,140	1941	1
13.5EF	———	40B, C	1350	GM-EMD	FTB	B-B	55,770	223,100	1941	1
13.5EF	———	41A, D	1350	GM-EMD	FTA	B-B	58,175	232,690	1943	1
13.5EF	———	41B, C	1350	GM-EMD	FTB	B-B	58,288	233,150	1943	1
13.5EF	———	42A, D-47A, D	1350	GM-EMD	FTA	B-B	57,090	228,360	1944	1
13.5EF	———	42B, C-47B, C	1350	GM-EMD	FTB	B-B	56,490	225,970	1944	1
15EF	48A, C-50A, C	48A, C-50A, C	1500	GM-EMD	F7A	B-B	40,000	248,720	1950	
15EF	48B-50B	48B-50B	1500	GM-EMD	F7B	B-B	40,000	247,030	1950	
15EF	60A, C-64A, C	90A, C-94A, C	1500	GM-EMD	FP7A	B-B	40,000	243,200	1950	
15EF	60B-64B	90B-94B	1500	GM-EMD	F7B	B-B	40,000	235,700	1950	4
15EF	68A, C	68A, C	1500	GM-EMD	F7A	B-B	40,000	233,540	1950	
15EF	68B	68B	1500	GM-EMD	F7B	B-B	40,000	231,360	1950	
15EF	69A, C-73A, C	69A, C-73A, C	1500	GM-EMD	F7A	B-B	40,000	233,740	1950	
15EF	69B-73B	69B-73B	1500	GM-EMD	F7B	B-B	40,000	233,100	1950	
15EF	74A, C-79A, C	74A, C-79A, C	1500	GM-EMD	F7A	B-B	40,000	234,870	1950	5
15EF	74B-79B	74B-79B	1500	GM-EMD	F7B	B-B	40,000	229,700	1950	5
15EF	80A	80A	1500	GM-EMD	F3A	B-B	58,828	235,310	1949	1, 6
15EF	80B, C	80B, C	1500	GM-EMD	F3B	B-B	57,985	231,940	1949	1, 6
15EF	81A-86A, 81C	81A-86A, 81C	1500	GM-EMD	F3A	B-B	58,933	235,730	1949	1, 6
15EF	81B-86B	81B-86B	1500	GM-EMD	F3B	B-B	56,695	226,780	1949	1, 6
15EF	87A, C-89A, C	87A, C-89A, C	1500	GM-EMD	F7A	B-B	40,000	234,770	1949	
15EF	87B-89B	87B-89B	1500	GM-EMD	F7B	B-B	40,000	229,970	1949	
17.5EP	93A, C-94A, C	93A, C-94A, C	1750	GM-EMD	F9A	B-B	38,800	260,800	1954	7
15EP	95A, C	95A, C	1500	GM-EMD	FP7A	B-B	38,800	259,500	1950	
15EP	95B	95B	1500	GM-EMD	F7B	B-B	29,500	249,600	1950	
15EP	96A, C-97A, C	96A, C-97A, C	1500	GM-EMD	FP7A	B-B	38,800	260,600	1951	
15EP	96B-97B	96B-97B	1500	GM-EMD	F7B	B-B	29,500	249,440	1951	
15EP	98A, C-103A, C	98A, C-103A, C	1500	GM-EMD	FP7A	B-B	29,500	258,570	1951	
15EP	98B-103B	98B-103B	1500	GM-EMD	F7B	B-B	29,500	249,540	1951	
15EP	104A, C-105A, 6	104A, C-105A, C	1500	GM-EMD	FP7A	B-B	29,500	260,370	1952	
15EP	104B-105B	104B-105B	1500	GM-EMD	F7B	B-B	29,500	248,200	1952	
15EF	106A-108A, 109A, C-111A, C	106A-108A, 109A, C-111A, C	1500	GM-EMD	F7A	B-B	40,000	248,040	1950-1	
15EF	106C-108C	106C-108C	1500	GM-EMD	F3A	B-B	58,903	235,610	1949	1, 6
15EF	106B-108B	106B-108B	1500	GM-EMD	F3B	B-B	56,463	225,850	1949	1, 6
15EF	109B-111B	109B-111B	1500	GM-EMD	F7B	B-B	40,000	247,310	1950-1	
15EF	112A	112A	1500	GM-EMD	F7A	B-B	58,607	234,430	1949	1, 8
15EF	112B	112B	1500	GM-EMD	F3B	B-B	56,582	226,330	1949	1, 6
15EF	112C	112C	1500	GM-EMD	F3A	B-B	58,607	234,430	1949	1, 6
15EF	113A, C-118A, C	113A, C-118A, C	1500	GM-EMD	F7A	B-B	40,000	247,990	1951	
15EF	113B-118B	113B-118B	1500	GM-EMD	F7B	B-B	40,000	246,670	1951	
15EF	119A, C-121A, C	119A, C-121A, C	1500	GM-EMD	F7A	B-B	40,000	245,110	1953	
15EF	119B-121B	119B-121B	1500	GM-EMD	F7B	B-B	40,000	245,890	1953	
17.5EF	125A, C-126A, C	———	1750	GM-EMD	F9A	B-B	45,800	247,670	1954	7
17.5EF	125B, D-126B, D	———	1750	GM-EMD	F9B	B-B	45,800	249,900	1955	7
17.5ERS	200-205	2426-2431	1750	GM-EMD	GP9	B-B	44,600	251,220	1954	
17.5ERS	206-209	2432-2435	1750	GM-EMD	GP9	B-B	38,300	251,460	1954	
17.5ERS	210-212	2413-2415	1750	GM-EMD	GP9	B-B	44,600	245,860	1954	
17.5ERS	215	2402	1750	GM-EMD	GP9	B-B	44,600	247,700	1954	
17.5ERS	216-219	2405-2407, 2409	1750	GM-EMD	GP9	B-B	44,600	245,570	1954	
17.5ERS	220-223	2400-2401, 2403-2404	1750	GM-EMD	GP9	B-B	44,600	247,720	1954	
17.5ERS	224-227	2408, 2410-2412	1750	GM-EMD	GP9	B-B	44,600	245,100	1954	
17.5ERS	228-237	2416-2425	1750	GM-EMD	GP9	B-B	44,600	243,560	1954	
17.5ERS	238-249	2388-2399	1750	GM-EMD	GP9	B-B	44,600	246,740	1954	
17.5ERS	250-259	2378-2387	1750	GM-EMD	GP9	B-B	44,600	248,600	1956	
17.5ERS	260-269	2368-2377	1750	GM-EMD	GP9	B-B	50,400	246,300	1958	
17.5ERS	270-273	2436-2439	1750	GM-EMD	GP9	B-B	44,600	247,730	1954	
17.5ERS	274-277	2440-2443	1750	GM-EMD	GP9	B-B	44,600	248,920	1954	
17.5ERS	280-331	———	1750	GM-EMD	GP9	B-B	50,400	248,760	1959	
22.5ERS	340-355	———	2250	GM-EMD	GP30	B-B	50,000	266,000	1963	
25ERS	360-371	———	2500	GM-EMD	GP35	B-B	51,400	263,460	1965	
25GRS	380-391	———	2500	GE	U25B	B-B	57,200	264,000	1965	
16FRS	400-407	2450-2457	1600	FM	H16-44	B-B	52,500	243,640	1954	
16FRS	408-412	2458-2462	1600	FM	H16-44	B-B	52,500	245,800	1954	
16FRS	413-419	2463-2469	1600	FM	H16-44	B-B	53,000	245,780	1954	
16FRS	420-428	2500-2508	1600	FM	H16-44	B-B	53,000	247,300	1954	
16FRS	429-436	2509-2516	1600	FM	H16-44	B-B	53,000	246,000	1956	
12ARS	450-457	2475-2482	1600	Alco-GE	RS-3	B-B	34,000	247,600	1953	9
12ARS	458-462	2483-2487	1600	Alco-GE	RS-3	B-B	34,000	235,320	1954	9
12ARS	463-464	2488-2489	1600	Alco-GE	RS-3	B-B	34,000	236,700	1955	9
16ARS	465-470	2490-2495	1600	Alco-GE	RS-3	B-B	52,500	247,400	1955	
15ARS6	490-493	976, 981, 990, 996	1500	Alco-GE	RSC-2	A1A-A1A	33,500	256,150	1946	10, 9
15ERS6	500-508	2200-2208	1500	GM-EMD	SD7	C-C	67,000	295,760	1952	
15ERS6	509-511	2209-2211	1500	GM-EMD	SD7	C-C	67,000	296,270	1952	
15ERS6	512-514	2212-2214	1500	GM-EMD	SD7	C-C	67,000	295,100	1952	
15ERS6	515-523	2215-2223	1500	GM-EMD	SD7	C-C	67,000	296,420	1953	
17.5ERS6	530-543	2224-2237	1750	GM-EMD	SD9	C-C	67,500	297,000	1954	
16FRS6	550-555	2125-2130	1600	FM	H16-66	C-C	78,750	297,740	1953	
16BRS6	560-561	2100-2101	1600	BLHW	AS-616	C-C	78,750	327,600	1951	
16BRS6	562-563	2102-2103	1600	BLHW	AS-616	C-C	78,750	326,100	1951	
16BRS6	564-567	2104-2107	1600	BLHW	AS-616	C-C	78,750	294,160	1953	
16ARS6	570-572	2150-2152	1600	Alco-GE	RSD-5	C-C	78,500	297,280	1953	
16ARS6	573-575	2153-2155	1600	Alco-GE	RSD-5	C-C	78,500	296,400	1953	
15ARS6	580-581	975, 977	1500	Alco-GE	RSC-2	A1A-A1A	33,500	249,620	1946	9, 10
15ARS6	582-583	979-980	1500	Alco-GE	RSC-2	A1A-A1A	33,500	249,800	1946-7	10
15ARS6	584-586	989, 991-992	1500	Alco-GE	RSC-2	A1A-A1A	33,500	249,820	1947	9, 10
15ARS6	587	978	1500	Alco-GE	RSC-2	A1A-A1A	33,500	248,940	1946	10
15ARS6	588-594	982-988	1500	Alco-GE	RSC-2	A1A-A1A	33,500	236,800	1947	9, 10
15ARS6	595-597	993-995	1500	Alco-GE	RSC-2	A1A-A1A	33,500	239,940	1949	10
12ES	600-613	2048-2061	1200	GM-EMD	SW1200	B-B	36,000	247,600	1954	
12ES	614-619	1637-1642	1200	GM-EMD	SW1200	B-B	36,000	249,300	1954	
12ES	620-622	1643-1645	1200	GM-EMD	SW9	B-B	36,000	247,400	1951	

Number 264, an eastbound transcontinental freight train of the Milwaukee Road, rounds a curve near Plummer Jct., Washington. Locomotive 273, originally 2439, was built by GM-EMD in 1954.

Milwaukee Road photograph

RR. Class	Road Numbers	Pre-1960 Road Nos.	HP	Builder	Model	Wheel Arrangement	Tractive Effort	Weight	Date	Notes
12ES	623	1646	1200	GM-EMD	SW7	B-B	36,000	246,800	1950	
12ES	625-652	2020-2047	1200	GM-EMD	SW1200	B-B	36,000	248,400	1954	
10ES	665-667	1647-1649	1000	GM-EMD	NW2	B-B	30,000	249,000	1947	
10ES	668-669	1650-1651	1000	GM-EMD	NW2	B-B	30,000	252,192	1939	
10ES	670-672	1652-1654	1000	GM-EMD	NW2	B-B	30,000	249,200	1940	
24ET	690A, B	2001A, B	2400	GM-EMD	TR4	(B-B)x(B-B)	103,000	494,170	1950	
24ET	691A, B-695A, B	2002A, B-2006A, B	2400	GM-EMD	TR4	(B-B)x(B-B)	103,000	493,200	1951	
20ET	696A, B	2000A, B	2000	GM-EMD	TR2	(B-B)x(B-B)	81,600	494,460	1949	
12FS	700-710	2315-2325	1200	FM	H12-44	B-B	34,000	246,260	1955	
12FS	715-719	1833-1837	1200	FM	H12-44	B-B	34,000	248,940	1951	
12FS	720-729	1838-1847	1200	FM	H12-44	B-B	34,000	246,640	1951	
12FS	730-739	2300-2309	1200	FM	H12-44	B-B	34,000	245,000	1952	
12FS	740-744	2310-2314	1200	FM	H12-44	B-B	34,000	248,700	1954	
12FS	750-751	1826-1827	1200	FM	H12-44	B-B	34,000	246,900	1950	
12FS	752-756	1828-1836	1200	FM	H12-44	B-B	34,000	246,480	1951	
10FS	760	1802	1000	FM	ALT 100.6a	B-B	34,000	244,520	1944	11
10FS	761-770	1803-1812	1000	FM	ALT 100.6a	B-B	34,000	246,600	1945-6	11
10FS	771-776	1813-1818	1000	FM	ALT 100.6a	B-B	34,000	244,040	1949	11
10FS	777	1819	1000	FM	ALT 100.6a	B-B	34,000	244,300	1949	11, 12
10FS	778-783	1820-1825	1000	FM	ALT 100.6a	B-B	34,000	245,500	1950	11
10AS	800-811	1873-1884	1000	Alco-GE	S4	B-B	34,000	232,280	1951	
10AS	812-814	1885-1887	1000	Alco-GE	S4	B-B	34,000	231,180	1951	
10AS	815-819	1892-1896	1000	Alco-GE	S4	B-B	34,000	232,000	1953-4	
10AS	820-821	1670-1671	1000	Alco-GE	HH 1000	B-B	58,750	235,000	1940	1
10AS	822-824	1672-1674	1000	Alco-GE	S2	B-B	58,250	230,000	1940	1
10AS	825-828	1666-1669	1000	Alco-GE	S2	B-B	58,459	230,000	1943	1
10AS	829-831	1663-1665	1000	Alco-GE	S2	B-B	58,158	232,600	1943-4	1
10AS	832-837	1657-1662	1000	Alco-GE	S2	B-B	58,365	233,460	1945	1
10AS	838-839	1678-1679	1000	Alco-GE	S2	B-B	58,200	232,800	1947	1
10AS	840-842	1850-1852	1000	Alco-GE	S2	B-B	58,100	232,400	1949	13
10AS	843-847	1853-1857	1000	Alco-GE	S2	B-B	34,000	232,590	1949	
10AS	848-852	1858-1862	1000	Alco-GE	S4	B-B	34,000	230,880	1950	
10AS	853-857	1863-1867	1000	Alco-GE	S4	B-B	34,000	228,960	1950	
10AS	858-862	1868-1872	1000	Alco-GE	S4	B-B	34,000	232,320	1951	
10AS	863-866	1888-1891	1000	Alco-GE	S4	B-B	34,000	232,180	1952	
10ARS	870-872	961-963	1000	Alco-GE	RS-1	B-B	34,000	238,800	1950	
10ARS	873-874	1676-1677	1000	Alco-GE	RS-1	B-B	34,000	252,760	1943	
10ARS	———	1678-1679	1000	Alco-GE	RS-1	B-B	60,950	243,800	1941	19
12BS	900-904	1910-1914	1200	BLHW	S-12	B-B	34,000	237,340	1951	
12BS	905-906	1915-1916	1200	BLHW	S-12	B-B	34,000	236,000	1951	
12BS	907-914	1918-1925	1200	BLHW	S-12	B-B	34,000	241,840	1954	
12BS	920-924	1905-1909	1200	BLHW	S-12	B-B	34,000	237,300	1950	
12BS	925	1917	1200	BLHW	S-12	B-B	34,000	239,560	1952	
12BRS	926	970	1200	BLHW	RS-12	B-B	34,000	244,760	1951	
12BRS	927	971	1200	BLHW	RS-12	B-B	34,000	242,700	1952	
10BS	928-929	1680-1681	1000	Baldwin	VO 1000	B-B	34,000	243,980	1940	
10BS	930	1682	1000	Baldwin	VO 1000	B-B	34,000	237,580	1942	
10BS	931-932	1683-1684	1000	Baldwin	VO 1000	B-B	34,000	237,020	1943	
10BS	933	1685	1000	Baldwin	VO 1000	B-B	34,000	240,200	1944	
10BS	934	1686	1000	Baldwin	VO 1000	B-B	34,000	240,400	1944	
10BS	935	1687	1000	Baldwin	VO 1000	B-B	60,650	242,600	1944	1
10BS	936-939	1688-1691	1000	Baldwin	VO 1000	B-B	34,000	242,000	1945	
10BS	940-945	1692-1697	1000	BW	DS 4-4-1000	B-B	34,000	230,600	1948	
10BS	946-949	1901-1904	1000	BW	DS 4-4-1000	B-B	34,000	230,400	1949	
6ES	950-952	1616, 1617, 1622	600	GM-EMD	SW1	B-B	22,000	200,640	1940	
6ES	953	1633	600	GM-EMD	SW1	B-B	22,000	197,260	1940	
6ES	955-957	1618-1619, 1627	600	GM-EMD	SW1	B-B	22,000	201,480	1940	
6ES	960-961	1610-1611	600	GM-EMC	SW1	B-B	22,000	202,900	1939	
6ES	962-969	1612-1615, 1620, 1621, 1623, 1624	600	GM-EMC, GM-EMD	SW1	B-B	22,000	202,960	1939-40	14
6ES	970-977	1625, 1626, 1628-1632, 1634	600	GM-EMD	SW1	B-B	22,000	197,260	1940-1	
6.6AS	980-981	1600-1601	660	Alco-GE	HH 660	B-B	50,085	200,340	1940	1
6.6AS	982-983	1602-1603	660	Alco	HH 660	B-B	50,960	203,840	1939	1
6.6BS	985	1635	660	Baldwin	VO 660	B-B	50,970	203,880	1940	1, 16
3.6GS	990	1699	360	GE	44-ton	B-B	22,243	88,970	1940	1, 15
3.8GS	991-992	1700-1701	380	GE	44-ton	B-B	22,433	89,830	1941	1
3.8WS	993-994	1702-1703	380	Whitcomb	44-ton	B-B	22,195	88,925	1941	17
3.6WS	———	1704	360	Whitcomb	44-ton	B-B	22,134	88,536	1941	1
3.8WS	995-996	1705-1706	380	Whitcomb	44-ton	B-B	22,200	88,800	1941	1, 18
3.8WS	———	1707	380	Whitcomb	44-ton	B-B	22,146	88,584	1941	1
3.6DS	———	1708	360	Dav-Bes	44-ton	B-B	21,950	87,800	1942	1
3.6DS	997	1709	360	Dav-Bes	44-ton	B-B	21,850	87,400	1942	1
———	———	1800-1801	650	Whitcomb	?	D	44,320	179,280	1941	19
———	5900-5901	5900-5901	1000	MLW	motor car	A1A-A1A	23,455	93,820	1948	1

Roster of Milwaukee Road

Roster is based on data from CMSP&P chief mechanical officer and is accurate as of Nov. 8, 1965. Locomotive builders: FM-GE, Fairbanks-Morse-General Electric Co.; Alco-GE, American Locomotive Co.-General Electric Co.; GM-EMD, General Motors-Electro Motive Div.; FM, Fairbanks-Morse; GE, General Electric Co.; BLHW, Baldwin-Lima-Hamilton-Westinghouse; BW, Baldwin-Westinghouse; GM-EMC, General Motors-Electro Motive Corp.; Alco, American Locomotive Co.; Dav-Bes, Davenport-Bessler; MLW, Milwaukee Road.

(1) These units have been retired.

(2) 10A, B-12A, B were originally 5C, 21C (1st) and 6C-9C.

(3) 21A, B-22A, B were renumbered 13A, B-14A, B (2nd).

(4) 63B was retired in 1965.

(5) 74A, B, C-75A, B, C, 76A, B, and 78B-79B were retired in 1965.

(6) 80A, B, C, D-85A, B, C, D (st) were renumbered 80A, B, C, D, 81A, B, 84B, A, 82A, B, 85B, A, 83A, B, 86B, A, 107C, 106B, 107B, 106C, 108C, B, 112B, C before the 1960 renumbering.

(7) 81C, D-86C, D (2nd) were renumbered 125A, B, C, 126C, A, B, 127A, B, C, 128C, A, B in 1960, then renumbered 93A, 125B, A, C, 126C, 93C, 126B, 94A, 126D, A, 125D, 94C, and 125C.

(8) 86A (1st) was renumbered 112A before the 1960 renumbering.

(9) 450-464, 493, 580-581, 585, and 591 were derated to 1200 hp. when they received trucks from scrapped switchers, and their trucks went for trade on high hp. units.

(10) 490-493, 570-597 were upgraded to 1600 hp. Nos. 491-493 were rebuilt to B-B.

(11) 760-783 were upgraded to 1200 hp., reclassed 12FS.

(12) 777 was originally FM demonstrator.

(13) 840 has been retired. (14) 964, retired.

(15) 990 was originally numbered 1690.

(16) 985 was originally numbered 1649.

(17) 994 has been retired.

(18) 995 was sold to Ortner Co. in 1960. It is presently National Steel Castings Div. of Midland Ross 995.

(19) 1678-1679, 1800-1801 were sold to U.S. Government. ●

Milwaukee Road photograph

CMStP&P freight with "Little Joe" electric motors at Three Forks, Montana.

Coming Events

SEND advance notices of fantrips, conventions, etc., to Art Knowles, *Railroad Magazine*, 205 E. 42nd Street, New York, N.Y. 10017. Send them early, to be sure of getting them published. Items for August issue should be on our desk by June 10th.

June 1: Steam at Colorado Railroad Museum, ex-D&RG narrow-gage No. 346 will be fired and run with various trains for engine's 85th anniversary. Museum is 13 miles from Denver on Highway 58; write Bob Richardson, Box 641, Golden, Colo. 80401.

June 12-19: Last "Journey to Yesterday," Chicago to Silverton, using CB&Q steam loco 4960 to West Burlington. Lv. Chicago 9 a.m. Ride narrow-gage. Due back in Chicago 6 p.m. on 19th. Write Illini Railroad Club, Box 62, Champaign, Ill. 61820.

June 18-July 4: Finlay Rail Tour. Lv. Los Angeles 1 p.m. Visit Grand Canyon, D&RGW Durango-Silverton, Pike's Peak, Denver, Yellowstone Nat'l Park, Glacier Park, Victoria, etc. Write Finlay, 11306 Burbank Blvd., North Hollywood, Calif. 91601.

June 19: Steam from Galesburg, Ill., back to Chicago with Burlington's 4960. Few trips left with this steam loco. Write CB&Q, Room 711, Chicago, Ill. 60603.

June 19: Special train thru Royal Gorge, Pueblo to Salida and return, incl. lunch. Write R.M. Wexler, M.D., 310 Colorado Ave. Pueblo, Colo. 81005 before June 13. Trip sponsored by a Pueblo model rr club.

June 19: Trolleyrama Day, see and ride Ohio trolley cars; morning trip from Euclid to Olmsted Falls Museum; afternoon over Shaker Heights and CTC Rapid Transit. Write Geo. M. Babstuber, 21701 Maydale Ave., Euclid, Ohio 44123.

June 25: Tour New Haven branch lines, mostly freight only. Lv. Grand Central New York 9:30 a.m. for Devon, Waterbury, and Torrington on Naugatuck branch; Hartford and Middletown, on Valley branch; Cedar Hill and New Haven on Air Line. Back in New York 8 p.m. Coaches, open-door baggage. Photo stops. Fare $8.50 (kids $4.50). Write Railroad Enthusiasts, Box 258, Caldwell, N.J. 07701.

June 26: Halifax, N.S., to Upper Musquodoboit via CNR on RDC, 200-mile round trip along Atlantic Ocean and interior. Write Gary Pollock, 9 Lanark St., Spryfield, Nova Scotia, Canada.

June 26: Tour Chicago rapid transit system using 4000 class cars. Lv. 9 a.m., return by 4:30 p.m. Write Thomas Kopriva, CERA, Box 503, Chicago, Ill. 60690.

June 30: See Burlington's 6940 steamer in action, pulling Circus Parade Limited for the last time; 17 double-length flat cars loaded with circus wagons, 3 shining passenger cars, Lv. Baraboo, Wis. 6:15 a.m. Arrive Milwaukee on C&NW rails 1 p.m. (See our front cover and first item in Mail Car dept.)

July 1-4: Silverton n.g. trip. Lv. San Francisco on "California Zephyr" to Grand Jct.; chartered motor coach over mts. to Durango for the night; buffet dinned. Write Arthur Lloyd, R&LHS, 974 Pleasant Hill Road, Redwood City, Calif. 94061.

July 10: NRHS trip to Pittsburgh, covering many trolley lines. Write Gerhard Solomon, 530 Cleveland St., Allentown, Pa. 18103.

July 16 and 17: Free train ride! Bohemia Mining Days celebration; (14-17) town will re-live gold rush days. Trains lv. Cottage Grove, Ore., 9:30 a.m. and 1:30 p.m. 30-mile round trip thru "breathless scenery"—woods, lake, mining country on Oregon, Pacific & Eastern Ry. Write Ray E. Nelson, 34 South River St., Cottage Grove, Ore. 97424.

July 17: Last steam trip with 6940! (She requires extensive shopping under ICC regulations for which CB&Q claims "there is no economic justification.") Trip from Chicago to Denrock and return, $6.50. Illini Railroad Club, Box 62 Champaign, Ill. 61820.

July 19-Aug. 4: Tour European transit systems: London, Paris, Moscow, Stockholm, Milan. Write L.S. Miller, c/o Railway Age, 30 Church St., New York, N.Y. 10007.

July 30: On Belfast & Moosehead Lake, one of the very few city-controlled rrs. Lv. Belfast, Maine, 10 a.m. for Burnham Jct. in gons, ride beside river and lake; photo stops. Fare $4.50 (kids $2.25). Barbecued chicken dinner $1.50. Downeast RR. Club (Div. of RRE) Box 196, Brunswick, Me. 04011.

Aug. 6: Steam at Boise, Idaho, to Huntington, Calif. using UP 844(4). PNR-NMRA Convention (Aug. 5-7). Fare $7.50, Banquet $6.50. NMRA membership required for participation in any convention activity. Write James Dunbar, Box 4242, Boise, Idaho 83705.

Aug. 13-Sept. 4: Railroad Enthusiast coast-to-coast trip already sold out!

Aug. 27-Sept. 8: Alaska-Yukon Adventure, delux tour by rail and steamer to caribou country. Peace River, inside passage, sleeping cars, from San Francisco. Write Arthur Lloyd, R&LHS, 974 Pleasant Hill Rd., Redwood City, Calif. 94061.

Sept. 6-20: Rail Study Tour: Geneva, Milan, Nice, Paris, Amsterdam, Utrech, Frankfurt, Berne, Zurich, by rail. Swissaire from New York. $775, deposit $100. Write Robt. G. Lewis, c/o Railway Age, 30 Church St., New York, N.Y. 10007.

Sept. 15-Oct. 13: ORCB tour of Europe and England. Lv. New York on the Queen Elizabeth. Write Brotherhood Tours, Box 3612, Station A, El Paso, Texas.

Sept. 23-Oct. 15: Modern Railroads (magazine) seminar tour by air from San Francisco; 11 days in Japan, ride Takaido Line, 3 days in Taiwan, 4 in Hong Kong, 3 in Thailand; total $1,694, deposit $100. Write Tom Shedd, 5 South Wabash Ave., Chicago, Ill. 60603.

Oct. 2: CNR steamer 6218 from Portland, Me., to Island Pond; diesel on the return trip; $12.50 (kids $7). Write Jesse F. Libby, Jr., RRE, 344 Pine St., South Portland, Me. 04106.

Long Island Rail Road operates tours each Sat. and Sun. to interesting and historic points on Long Island and Mystic, Conn., 89 trips this year. Write Tour Dept., LIRR, Jamaica Station, N.Y. 11435.

Western Pacific operates tours from San Francisco. Write Frank J. Rauwolf, WP, 526 Mission St., San Francisco, Calif. 94105.

Canadian National has scheduled 20 voyages from Vancouver to Alaska, 8 days, price varies, last trip Sept. 25. Contact any CNR office.

River cruises on sternwheeler steamboat Delta Queen from Cincinnati to St. Louis, New Orleans, Pittsburgh, St. Paul. Write Green Line Steamers, 320 Public Landing, Cincinnati, Ohio 45202, or 10 East 40th Street, New York, N.Y. 10016.

--Earn To $15 An Hour, Full or Spare Time--

INVESTIGATE ACCIDENTS

CAR FURNISHED EXPENSES PAID

NO prior experience needed. Only average education required.

YOU PERFORM A REAL SERVICE

WHILE ENJOYING A BIG-PAY CAREER

As an Accident Investigation specialist you will (1) INVESTIGATE FACTS and (2) DISTRIBUTE MONEY as the representative of wealthy organizations.

No other business offers you greater opportunities. Here's why: The huge, rapidly expanding Accident Investigation field right now distributes more money than any other service industry. And it's growing *fast*. Over 200 MILLION ACCIDENTS must be investigated this year for Insurance Companies, Airlines, Steamship Lines, and Government Offices.

KEEP PRESENT JOB UNTIL READY TO SWITCH

Already hundreds of men we have trained are earning thousands of dollars extra each month. Joe Miller earned $14,768 his first year. A. J. Allen earned over $2,000 in ten weeks. Robert Meier says "I'm now earning $7.50 to $15.00 an hour in my own business... Universal's course is wonderful."

FREE EMPLOYMENT HELP GIVEN

Firms needing men from coast-to-coast, in Canada and overseas, call upon Universal. *We place far more men in this booming field than any other individual, company or school.* Write today. Let me show you how easy it is for you to get into this exciting new career in just a matter of weeks. No obligation. No salesman will call.

Mail Now for FREE BOOK

M. O. Wilson, Dept. AM-7
Universal Schools,
6801 Hillcrest, Dallas, Texas 75205

Please rush me your FREE BOOK on Big Money In The Booming Accident Investigation Field. I will be under no obligation — and no salesman will call upon me.

Name .....

Address .....

City ..... State ..... Zip Code .....

Our Cut-Rate Book Service

As a service to readers, we sell books at about 5 percent off publisher's price. Our discount applies to almost any English-language railbook still in print, if it retails above $2.50. All are postpaid.

New York State residents must enclose 2 percent sales tax with each order. But we do not charge a New York City sales tax because our book agency is located in New Rochelle, N.Y., which has no city sales tax.

The books are available only by mail. Money order or check may be sent to *Railroad Magazine Book Service,* 205 East 42nd Street, New York, N.Y., 10017. Here are a few suggestions:

	List Price	Our Price
THE TRAINS WE RODE, Beebe and Clegg	$15.00	($14.25)
2,000,000 MILES OF TRAIN TRAVEL, Allen	$11.00	($10.45)
RAILROAD AVENUE, by Freeman Hubbard	$ 5.95	($ 5.65)
GREAT TRAINS OF ALL TIME, by Freeman Hubbard	$ 4.95	($ 4.70)
DIRECTORY, RY. OFFICIALS, YEAR BOOK	$10.00	($ 9.50)
RAILS THROUGH DIXIE, Krause, Reid	$ 8.95	($ 8.50)
AMERICAN RAILROAD JOURNAL	$ 5.95	($ 5.65)
C&O POWER, by Shuster, Huddleston, Staufer	$15.00	($14.25)
SYMPHONY IN STEAM, by Jan Gleysteen	$ 6.00	($ 5.70)
DINNER IN THE DINER, by Hollister	$ 5.95	($ 5.65)
BRITAIN'S RAILWAYS UNDER STEAM, by Snell	$13.00	($12.35)
GREAT RAILWAY JOURNEYS, by Jones	$ 5.95	($ 5.65)
IN PURSUIT OF THE GENERAL, Pittenger	$ 6.95	($ 6.70)
STEAM POWER: C&NW, by Charles T. Knudsen	$10.00	($ 9.50)
INLAND EMPIRE, by John Fahey	$ 5.95	($ 5.65)
LOCOMOTIVE ENGINEER'S ALBUM, Adbill	$12.95	($12.30)
STEEL RAILS TO SUNRISE, Ziel and Foster	$12.95	($12.30)
TWILIGHT OF STEAM LOCOMOTIVES, Ron Ziel	$ 5.95	($ 5.65)
BURLINGTON ROUTE, by Richard C. Overton	$10.00	($ 9.50)
TO THE GREAT OCEAN (Trans-Siberian), Tupper	$ 8.95	($ 8.50)
RAILWAYS (British), by George C. Allen	$ 3.00	($ 2.75)
NEVADA COUNTY NARROW GAUGE, by G. Best	$ 7.50	($ 7.15)
RAILWAY CARRIAGES IN BRITISH ISLES, Ellis	$11.75	($11.15)
PACIFIC COAST SHAY, by Dan Ranger	$ 7.95	($ 7.55)
RUDOLF DIESEL, by Nitske and Wilson	$ 5.95	($ 5.65)
RAILROAD THAT LIGHTED S. CALIF., by Johnson	$ 7.50	($ 7.15)
SMOKE ABOVE PLAINS, Ehernberger-Gschwind	$ 4.95	($ 4.70)
SMOKE ACROSS DIVIDE, Ehernberger-Gschwind	$ 4.95	($ 4.70)
SMOKE ACROSS PRAIRIE, Ehernberger-Gschwind	$ 4.95	($ 4.70)
TRAINS ANNUAL 1966	$ 3.75	($ 3.55)
WORLD'S UNDERGROUND RYS., F. Howson	$ 6.25	($ 5.95)
B&O POWER, by Alvin Staufer	$15.00	($14.25)
RAILROADS OF BLACK HILLS, Fielder	$12.50	($11.90)
RAILWAY HOLIDAY IN SWITZERLAND, Behrend	$ 6.95	($ 6.70)
RAILWAY HOLIDAY IN N. GERMANY, Davis	$ 6.95	($ 6.70)
GREAT CENTRAL, Vol. III, by George Dow	$19.00	($18.05)
WORLD RAILWAYS: 1962-'63 edited by H. Sampson	$28.00	($26.60)
GREAT LAKES CAR FERRIES, by Geo. Hilton	$ 6.00	($ 5.70)
THE TRAIN THAT NEVER CAME BACK (true railroad stories for 8-12 age) by Freeman Hubbard	$ 2.75	($ 2.60)
HAWAIIAN RAILWAYS, by John Hungerford	$ 4.95	($ 4.70)
THE OVERLAND LIMITED, by Lucius Beebe	$ 5.95	($ 5.60)
RAILWAY SIGNALLING SYSTEMS, Day-Cooper	$ 3.25	($ 3.00)
THE MA & PA, by George W. Hilton	$ 5.00	($ 4.75)
20TH CENTURY, by Lucius Beebe	$ 5.95	($ 5.65)
CANADIAN NATIONAL RAILWAYS by G. R. Stevens, 2-volume set	$12.50	($11.90)
GREAT DAYS OF THE CIRCUS, by Freeman Hubbard	$ 3.95	($ 3.75)
SHIPS AND NARROW GAUGE RAILS, by Best	$ 6.00	($ 5.70)
PGE: RAILWAY TO NORTH, by Bruce Ramsey	$ 7.50	($ 7.15)
RAILWAY ANTHOLOGY, ed. by Whitehouse	$ 9.25	($ 8.80)
THE RUTLAND ROAD, by Shaughnessy	$10.00	($ 9.50)
ACROSS THE MIDLANDS, by Cook	$ 8.95	($ 8.40)
STEAM LOCOS OF BURLINGTON, Corbin, Kerka	$15.00	($14.25)
BRITISH RAILWAY TUNNELS, by Blower	$ 5.25	($ 5.00)
LOCOSPOTTERS ANNUAL 1966, by Kitchenside	$ 2.75	($ 2.60)

BOOKS OF THE RAILS

THE ALASKA RAILROAD *in Pictures*, by Bernadine LeMay Prince; Vol. 1, 466 pages, 7x10½" (Vol. II is scheduled for publication Oct. 1, 1966); published by the author, 624 F St., Anchorage, Alaska, at $20 for the 2-volume set.

Alaska Railroad is unique. No other road that we know of had its first spike driven by a woman, a pretty girl at that, named Babe White. One of this book's nearly 1,000 photos shows her gracefully poising a spike maul above the rails at Ship Creek, Alaska, on April 29, 1915, just about a year after Congress had authorized building the railroad. But Babe was not the first female hired to work for this road in construction days. There are three fetching views of Una North, who held that distinction.

Our favorite shot, however, shows a "rubberneck" car that consisted of a roofed-over flat with ascending tiers of wooden seats for passengers, slightly similar to the "golden" sight-seeing trolleys that used to run in Montreal, Canada. The book is a collection of rare and curiosity-provoking old pictures—plus informative text matter. We wonder that Mrs. Prince was able to assemble so many photos, not counting those which will appear next October in Vol. II. The author is in a favorable spot for collecting such material, having been employed by the Alaska Railroad for the past 17 years, mostly as editor of *The Railbelt Reporter*, the ARR house organ, and chief of Office Services.

Bernadine was born in Little Falls, Minn. Her brother "Pete" is a locomotive engineer with the Great Northern and has reason to be proud of her rich contribution to rail lore and Americana. The book is printed on good paper, is sturdily bound, and weighs 3¼ pounds. There has long been a need for a book on ARR history; this is the first and only one. We recommend it to all who are interested in the Union's 49th state.

"Pictures continue to pour in from former and retired railroaders," the author tells us, "and we are already dreaming of a third volume, to come off the press in 1968 or '69."

Meanwhile, Vol. I is selling fast. We hope Vol. 2 will carry an index for the entire work.

RAILWAY HOLIDAY IN SWITZERLAND, by George Behrend, 182 pages, 5½x8½", illustrated with photos and

maps, classified data in appendix, bibliography, index, published in England by David and Charles, Ltd., distributed by Taplinger Publishing Co., Inc., 29 E. 10th St., New York, N.Y. 10003, $6.95.

We thought *Switzerland's Amazing Railways*, by Cecil J. Allen (No. 39 in our "Interesting Railfans" series), had just about covered the subject; but Behrend, while drawing on some material from Allen and other authorities, has come up with a fresh approach and much additional information, expertly handled. A distinguished railroad author in his own right, Behrend has six good books to his credit. His many Swiss illustrations are well chosen and sharply reproduced. The new book is helpful to anyone contemplating a vacation in Switzerland as well as nostalgic to readers who have already been there.

RAILWAY HOLIDAY IN NORTHERN GERMANY, by W. J. K. Davis, 172 pages, 5½x8½", illustrated with many photos and maps, classified data in appendix, bibliography, a companion piece to *Railway Holiday in Switzerland*, published and distributed respectively by the same companies, $6.95.

This new title in the *Railway Holiday* series, which includes four other books thus far, has a special value for railfans planning to visit non-Communist Germany, for that area still boasts 46 separate shortlines in addition to the *Deutsche Bundesbahn*, or national system, which is still a stronghold of steam power. Davis's book is crammed with readable details, gracefully written.

GREAT CENTRAL: Vol. III: *Fay Sets the Pace*, 1900-1922, by George Dow, 347 pages, 6x9", plus 15x11" insert of keyed sectional drawing of Atlantic loco; illustrated with full-color pages, b&w photos, maps, old prints, and equipment plans (cars, signals, etc.); appendix, index, published by Ian Allan, London; distributed by Leisure Time Books, P.O. Box 634, New Rochelle, N.Y., $19.

This concludes Dow's monumental trilogy, the first two volumes of which we reviewed previously. Each volume is a masterpiece in itself. While intended mainly for British readers, Vol. III also has an appeal for English-speaking railfans everywhere, particularly those whose feeling for history is not limited to their own homeland. Dow carries us through the various phases of a great rail system down to its closing days. The human quality of his writing is evidenced by his final paragraph:

"Lady Fay, his devoted wife, died on 10th July, 1946. The 'Old Man,' the 'Grand Old Man,' who had long outlived all his contemporary general managers, breathed his last at Awnbridge on 30th May, 1953, in his ninety-seventh year, and was buried in the churchyard there."

Gain Prestige, Big Income, Job Security

You, too, can be an

Accident Investigator

Thrilling New Way To Earn Up To $8 An Hour!

What Other Career Offers A Better Future?

In a matter of weeks you can know exactly how to *investigate the facts* about an accident or fire; *properly estimate the loss, then help distribute the millions of dollars* insurance and transportation companies pay out to cover damages and injuries. For men to 65, this is a golden opportunity to get into one of today's most exciting new professions. 200 million accidents *this year* will require so many more trained investigators, some beginners get up to $500 a month, plus car!

We Teach You Quickly at Home in Your Spare Time

We are training scores of accident investigators by mail and helping to place them in the fast-growing, highly profitable Accident Investigating Field. No previous experience is required. A car is usually furnished; expenses are paid. Many men earn while they learn. Only average-education is required.

Here are just a few reports of recent earnings: Bob Durant jumped his salary to $7500 as soon as he started. Bill Peck made $943.00 *in just 5 days*, checking hurricane damage! Bob Pritchard reports companies in his area offering men $8,000 a year to start, plus car and expenses! (Many men are earning $8 an hour on the side in their spare time.) No wonder Art Victoria writes, "I recommend Liberty School (Home Study Course) for anyone seeking a much better life."

Keep Your Old Job, Work Part Time at New Job Until Ready to Switch

Only 15 minutes reading a day puts you on the high road to success as an accident investigator. Progress as fast or as slow as you like. Many men get their diplomas in a matter of weeks! (We give you FREE Employment Help through our nation-wide PLACEMENT SERVICE—or show you how to start an investigating business of your own at home.) Dozens of big companies with job openings are making good use of our monthly graduate list.

Mail Coupon Today for FREE Brochure

Let us prove how easily you can quickly switch into this exciting new career that provides prestige, security, a bright future! Sending for FREE Brochure does not obligate you in any way. No salesmen will call. Mail postcard or coupon below today to Dept. 1267, Liberty School, 1139 W. Park, Libertyville, Ill. (The Liberty School is fully licensed as a Private Business School by the State of Illinois.)

Eric P. McNair, President, Dept. 1267
Liberty School of Claim Investigating
1139 W. Park, Libertyville, Illinois

MAIL THIS COUPON

Rush me your FREE BROCHURE showing how I can gain job security and prestige and make as much as $1,000 a month by getting into the Booming Accident Investigating Field. Also include the actual names and locations of successful graduates all over the country. This does not obligate me in any way, and no salesmen will call.

Name_____ Age_____

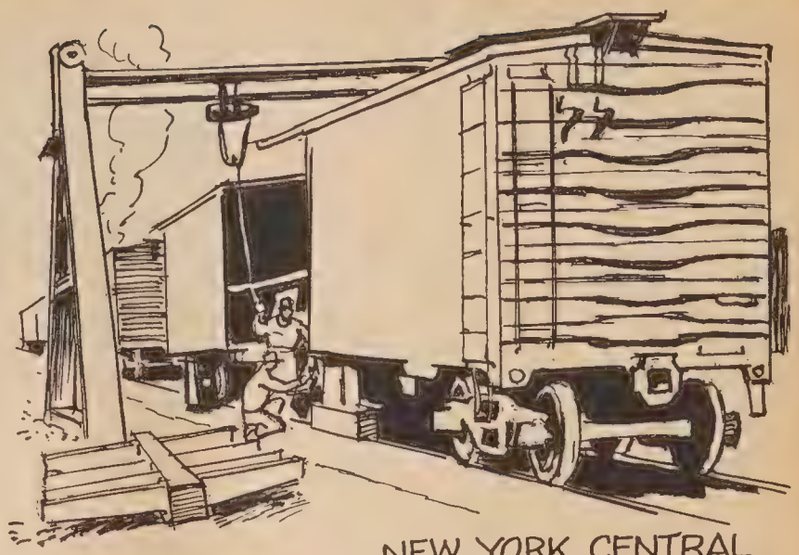
Address_____

City_____ State_____ Zip Code_____

ALONG THE IRON PIKE

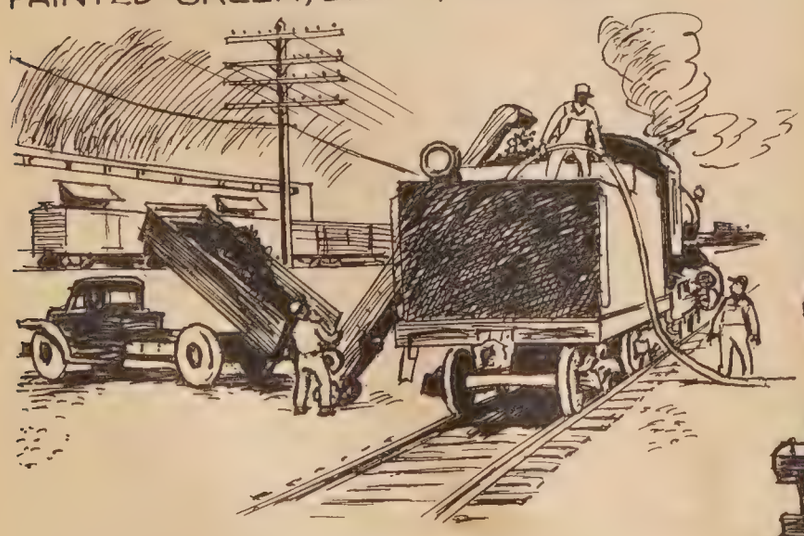
by Joe Easley

TROLLEY TRAFFIC IN MUNICH, GERMANY, IS DIRECTED WITH HELP OF TELEVISION CAMERA INSIDE A TOWER. CLOSED-CIRCUIT TV VIEW OF PUBLIC SQUARE IS RELAYED TO POLICE HEADQUARTERS. POLICE USE LOUDSPEAKERS.

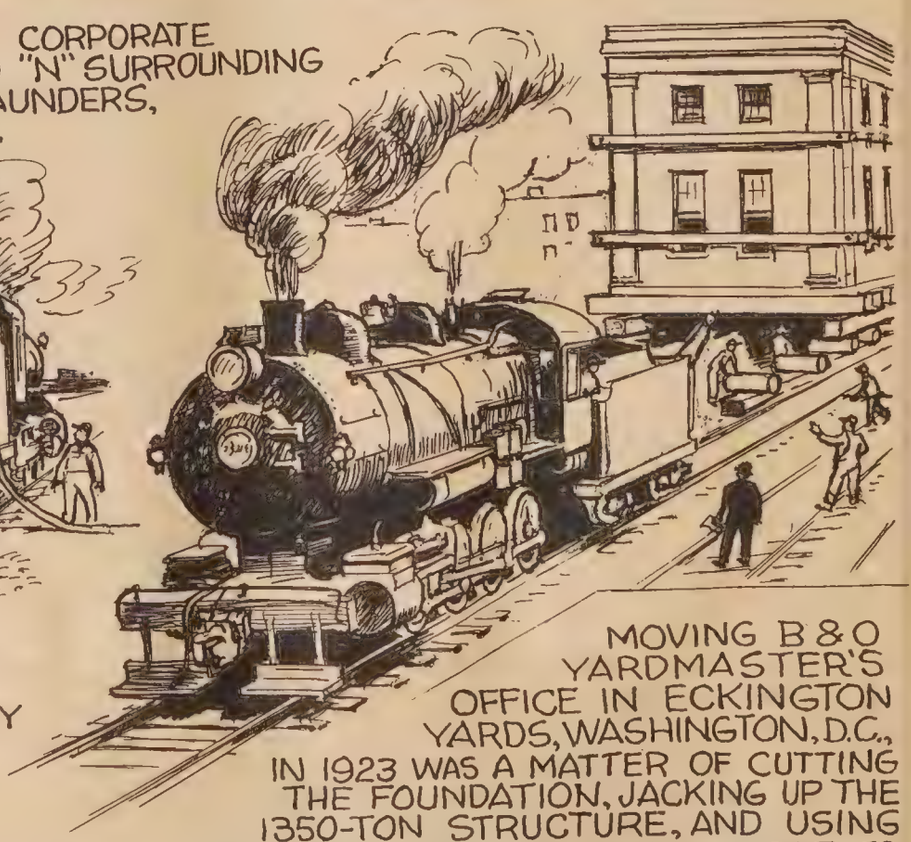


NEW YORK CENTRAL STRETCHES 40-FOOT BOXCARS AT ITS BEECH GROVE, IND., SHOPS BY SLICING EACH ONE IN HALF AND INSERTING A NEW 10-FOOT SECTION BETWEEN THE HALVES. THIS PROVIDES EXTRA SPACE, NEEDED URGENTLY TO HANDLE HEAVY FREIGHT TRAFFIC.

ONTARIO NORTHLAND ADOPTS NEW CORPORATE SYMBOL, OR LOGO: LARGE STYLIZED "N" SURROUNDING SMALLER "O", DESIGNED BY IVAN SAUNDERS, PAINTED GREEN, BLACK, AND WHITE.



2-8-2 OWNED BY TENNESSEE VALLEY CHAPTER OF NRHS IS SERVICED AT CHATTANOOGA BY COAL DUMP TRUCK AND HOSE FROM ENGINE TERMINAL HYDRANT. ENGINE IS EX-KENTUCKY & TENN. NO. 10 (BALDWIN, 1920). *(Drawn from photo by Jim Speer)*



MOVING B & O YARDMASTER'S OFFICE IN ECKINGTON YARDS, WASHINGTON, D.C., IN 1923 WAS A MATTER OF CUTTING THE FOUNDATION, JACKING UP THE 1350-TON STRUCTURE, AND USING SWITCHER 2349 AND STEEL CABLE TO HAUL IT 400 FEET ON STEEL ROLLERS.

HOBBY CLUB

Conducted by Sy Reich

TWO authors, James L. Ehernberger and Francis G. Gschwind, doing business as E&G Publications, P. O. Box 101, Callaway, Neb. 68825, have written three *Smoke Over the* books—*Plains, Divide,* and *Prairie*— each retailing at $4.95. Francis is a Nebraska rancher living on the Union Pacific's Kearney-Stapleton branch.

Sy Reich

For many years he's been taking photos and collecting railroadiana on Nebraska railroads. The books are printed in Cheyenne, Wyo., but the partners use his ranch as their main office for the ordering of books.

Jim Ehernberger hired out to the UP as a callboy in 1953 while attending high school at Cheyenne. "Later I worked for the UP in other capacities," he says, "as train-crew dispatcher, yard clerk, car caller (mudhop), station cashier, and interchange clerk (with the Rock Island in Denver but paid by the UP.) In 1962 I switched over to the Southern Pacific, working in the Freight Claims Department at their San Francisco general office. A year later I went into business for myself. My photography began in 1952. My collecting of railroadiana, mostly Wyoming material, dates back to 1956.

"Francis and I are currently doing a book on the UP's Northwestern District and we have nearly completed the Idaho Division, *Smoke Down the Canyons,* to be followed this fall by the Oregon Division, *Smoke Along the Columbia.* Also, for the past 10 years I have been working on a complete history of Wyoming's railroads, which I hope to have in book form next year, maybe in two volumes."

Steam Engine News

A tall-stacked steam loco, built in 1894 for the fourth Duke of Sutherland and driven by 4 reigning monarchs on rails of the Highland Ry. in Scotland by special permission, was purchased by Harold Foster of Victoria, B.C., and imported into Canada. She will remain in a provincial museum at Fort Steele near Cranbrook, B.C., together with an ornate "saloon" coach, also from Scotland.

The B.C. Government is building this museum on the site of the first North West Mounted Police (now RCMP) base west of the Rockies. Foster had seen a small ad in a British newspaper, made a transatlantic phone call, and found himself the owner of 65 tons of railway equipment. Engine is a 4-4-0 named Dunrobin. Kings who handled her throttle were Edward VII, George V, and George VI of England and Alfonso of Spain, all now deceased. Louis Farkas of Hamilton, Ont., sent us this information.

Steam operation in Travel Town, Griffiths Park, Los Angeles, was the Crystal Springs Railroad but has been discontinued and the engine is now on display trackage because the city would not repair her firebox, reports John Mueller, Jr., 2830 Marsh St., L.A. Fans are welcome to visit the L.A. Live Steamers, Inc., trackage adjacent to Travel Town, which usually has some activity each Sunday, especially the first Sunday of each month. John, who belongs to this organization, adds:

"We have been functioning over 9 years and rides are free. Who can tell me about the so-called 'mystery switch' of East St. Louis or sell me a picture? We want to build a 1½" scale model of it for our layout."

A set of four driving-wheel tires from a switching loco that were about to be scrapped have been located near his home by Sherman G. Shook, 160 Andover St., Wilkes-Barre, Pa. 18702. They can be bought for $90 plus shipping charges, he says. They look like new, have standard railroad flanges, 5¾" wide and a 26" diameter. With 5" thickness, they make a 36" driver, not a common size among museum roads.

A two-spouted water tank that stood long ago at Francis, Mo., was used by Burlington trains on one side and Chicago & Alton trains on the other side, we learn from John Robertson, 808 E. Monroe St., Mexico, Mo. 65265. That location also included a roundhouse, shops, station, ash-dump facility, and

ALASKA RAILROAD
BY BERNADINE LEMAY PRINCE

Second Edition,
Two Volumes
1000 Pages, 7x10",
2000 Pictures
Hard Bound Cover

Pre-Publication Price
Before
Oct. 1, 1966 .....$25.00
After Publication $30.00

Place pre-publication orders directly with publisher or through your local book store.

KEN WRAY'S PRINT SHOP INC.
125 E. Fireweed Lane, Anchorage, Alaska
While they last, autographed first editions $35.00

NEW YORK CENTRAL
10 inch, 33.3 rpm recording
$4.50 postpaid
Hudsons, Niagaras, Mohawks
Freight and Passenger
Free Literature
RAILROAD RECORD CLUB
Hawkins, Wisconsin 54530

35-SLIDES CO.
SLIDES
GREEN MOUNTAIN FALLS
COLORADO 80819

RAILROAD — TROLLEY
. . . master quality slides for sale — list and sample for 35c stamps or coin, specify roads. Also, we do custom slide processing and copy work — color or black & white — inquire by sending self-addressed stamped business envelope. Box 2222

U. P. BOOKS

SMOKE DOWN THE CANYONS
Picture book on the Idaho Division .....$4.95 ppd
SMOKE ABOVE THE PLAINS
Picture book on the Kansas Division ....$4.95 ppd
SMOKE OVER THE DIVIDE
Picture book on the Wyoming Division ..$4.95 ppd
Each book contains over 100 photos and a descriptive text, a MUST for UP/steam fans.
E. & G. PUBLICATIONS
P. O. Box 101 Callaway, Nebr. 68825

RIDE STEAM TRAINS OF YESTERYEAR
Visit Steamtown, U.S.A., Bellows Falls, Vt. 26-mile round trip excursions from Bellows Falls to Chester, Vt. Museum features over 40 locomotives, including U.P.'s Big Boy.
Schedule: May 28-June 18 } Weekends only
Oct. 15-Oct. 30 }
June 24-Oct. 12—Daily
Rates: Adults $2.50 Ride, $.90 Museum
Children (5-12) $1.25 Ride, $.50 Museum
Special Double Headers from Bellows Falls to Ludlow, Vt., will leave Bellows Falls at 1:30 P.M. on Sundays only, Sept. 4 - Oct. 16 and Labor Day.
ALSO AVAILABLE
104-mile round trip mixed train service (diesel powered) from Bellows Falls to Rutland, Vt., Mon. through Fri. Adults $6.75, Children $4.00 (5-12) Passage provided in a caboose.

America's Newest Attraction . . .
BEAR CREEK JUNCTION
In the heart of the Great Smoky Mountains
Opens June 4, 1966
RIDE the scenic railroad — powered by genuine Shay steam locomotives
VISIT the railroad car museum
SEE the 1883 Depot with authentic artifacts
BRING YOUR CAMERA
FREE PICNIC AREAS — FREE PARKING
Write for free Literature:
Dept. RR
Fontana Village Resort
Fontana Dam, N.C.

A real novelty, photographed in 1952: Coos Bay Lumber Co. at Powers, Oregon, had a water tower with two spouts, each spout being used for a different track level.
Ivan Ergish, 915 Vista Ave., Lewiston, Idaho 83501

locomotive maintenance equipment. Located 3 miles east of Mexico, Mo., it was known as Francis Terminal, a busy C&A-Burlington interchange. The old terminal is about gone; nothing is left but the red and green depot with broken windows and leaky roof. John Robertson would like to hear from readers who can tell him more about Francis, especially those who can supply photos of that old terminal.

"Texas & Pacific steel water tanks remain at Wills Point, Texas, and there is a wooden affair at the north end of Kansas City Southern station at Heavener, Okla.," writes Charles M. Mizell, Jr., 6623 Santa Fe Ave., Dallas, Texas 75223. "I remember seeing a group of about three Louisville & Nashville water towers in 1947 at Guthrie, Ky., and at least two end tanks had twin spouts.

"In addition to the 'Steam Locomotive Nicknames' cited by Fred Westing in your April issue were *Madam Queen,* the Santa Fe 2-10-4 No. 5000; the *Mt. Pelee,* Santa Fe No. 824; and the Santa Fe 3460, which had some of her streamlining removed in World War II but remained a streamlined engine till the end, with a blue color scheme that prompted the nickname *Blue Goose* as well as *Mae West.*

"Also, the Burlington had a streamlined 4-6-4, nicknamed *Alice the Goon.* And about 40 years ago T&P 2-10-2's were equipped with large blowers on the side to burn lignite coal; they were known on the system as *Snuff Dippers.* Besides Bellows Falls, Vt., there are Union Pacific *Big Boys* on display at Los Angeles; Green Bay, Wisc.; National Museum of Transport, St. Louis, and the Southwest Railroad Historical Society's 'Age of Steam' here in Dallas. Furthermore, the UP is keeping one, together with a *Challenger,* for its future Centennial Celebration."

Item in June issue, page 60, tells of old but operable steam locomotive for sale by B.R.H.S. Bosma, Mozartstraat 25, Leiden, Netherelands. Here are two.

An H.K. Porter "fireless cooker" in fairly good condition stands in the back yard of a used machinery company (he doesn't say where) and may be bought for $3,000, reports Colwyn G. Beynon, 74 W. 27th St., Hamilton, Ont., Canada. A few years ago she was switched in there by the Toronto, Hamilton & Buffalo, after having seen many years of service with Canadian Westinghouse. Colwyn is a yard switchman for Steel Co. of Canada Ltd. Says he: "We have 28 GM diesel locos, 3 American railroad derricks, and many miles of complex yard tracks, and employ over 300 hoggers and fireboys. An old TH&B steam loco, No. 40, is kept in our roundhouse solely to make steam for our rod mill."

Lone Wolf Railfan

Recollections of 1907-1909, when he lived in a New Hampshire village and helped the Boston & Maine station agent with local freight, haunt Jim Crimmins, 5 Bonnie Drive, Exeter, N.H. 03833. "One midsummer morning," he writes, "some freight was left on the platform, and a few hours later a yellow spot adorned the location; a large carton of butter had melted!"

Jim's father, a stationary engineer-fireman, told the lad that if he wanted to go firing he should hire out on a railroad, but after looking at the dirty pile of real estate to be shoveled Jim passed it up. Instead, he became a lone wolf railfan—that is, for the most part. However, Jim is a member of the Railroad Enthusiasts, R&LHS, and Seashore Trolley Museum.

He says: "Several times a pal and I went to Bridgton, Maine, to ride the narrow-gage Bridgton & Harrison trains. One day while standing on the rear platform of the next to the last car I heard a local chap say, in drunken bravado, that it would be fun to pull the pin and leave the last car. Thinking he might do it, I wandered to the rear of that car, just in case. Well, he pulled the pin; the car stopped and then headed back toward Bridgton down a grade. We made fast time, the little old buggy hugging the rails and riding like a Pullman. I started winding the brake; I could be winding yet—the rigging was disconnected! A fellow with me tried to halt the car by dragging his feet on the ground, but we were going to fast. Later, the car slowed a bit and we stopped it by both dragging our feet, and waited until the train came poking along in search of it."

Jim has worked in a grocery store, a shoe shop, a printing establishment, as a wool sorter in a mill, then as a hand compositor for a small weekly newspaper and job printing shop, and eventually set up a printing shop of his own and put out a weekly tabloid sheet. During World War I, Uncle Sam gave him an escorted tour of France. A longtime reader of *Railroad Magazine,* Jim has saved every issue from Aug. '39 to date. The lot of them—not individual copies—are available to the highest bidder who writes to him.

Incidentally, with his knowledge of printing, Jim is a good help to us in reading galley proofs of *Railroad Magazine.*

"When things go wrong," he says, "I'm like an old hound dog—just drop everything and take things easy. I have two pet peeves. First, the fellow who sends me a postal card asking for a list of things or information. Such cards I ignore. Second, the fellow to whom I write, enclosing a stamped addressed envelope but get no reply."

Jim tells us that the old Boston & Maine loco, a Pacific type, in the river at Portsmouth, N.H., since September, 1929, will not be salvaged as originally

I found the Easy Way to Escape from being a "Wage Slave"

I kept my job while customer list grew ...then found myself in a high-profit business.

Tony Nobrega didn't let his limited education, large hospital bills and financial reverses stop his plans to own a business of his own.

He tells how, with a very small investment, he reached his goal ...a **growing income** and **a fuller life** for his family.

Five years ago, I wouldn't have believed that I could be where I am today.

I was deeply in debt. My self-confidence had been shaken by a disastrous business set-back. Having nobody behind me, I had floundered and failed for lack of experience, help and guidance.

When I had finished grammar school, I worked in a factory. After my World War II hitch in the Army, I opened a small grocery store. Then a new highway shut off our customers and I lost my shirt.

I tried several selling jobs including vacuum cleaners. My customers often would say, "What my carpets really need is professional cleaning." My progress was slow. I wanted a bigger income and the independence and security of my own business.

One day, a Duraclean advertisement caught my eye and I found that the dealership in my location was open. "Maybe that's it," I said to myself.

I applied for this service dealership and got it. But I had many obligations and a family to support. I couldn't quit my job so I kept on for seven months and ran my new business in spare time. My list of customers grew and grew.

When my spare time income alone was enough to keep my family going, I quit my job.

Now I was on my own—full time. My feeling of confidence was restored. I knew that I had a highly successful worldwide organization behind me. I soon learned that the cooperation, training and assistance they gave me was far more than I expected.

I also found that my six services were genuinely superior to other methods. I learned that fact from my customers. They have become my best salesmen. Their recommendations and repeat orders have become a large part of my business.

My major service is a safer and greatly improved process for cleaning upholstery and floor coverings. It's so effective that my service is endorsed by leading furniture and carpet makers. It is backed by Parents' Magazine Seal and by McCall's "Use-Tested" approval. These endorsements make orders come easy.

Trendline upholstery furniture mills recommend my Duraclean method as the safest and most effective method of cleaning fine furniture. Aldon Carpet Mills approve this process and both the Kingston Mills and the Croft Mills say it is superior. This has given customers confidence in my service.

My customers are thrilled at the personal care given their furnishings. There is no mechanical scrubbing or soaking. There are no harsh solvents or soaps. Instead of driving dirt, grime and grease deeper into the pile, it is removed by absorption. The Duraclean method doesn't merely clean...it enlivens and brightens the fibers.

With another popular service, called **Durashield**, I can prolong the new look of freshly cleaned or new fabrics. This process postpones resoiling.

Another service I have, called **Duraproof**, makes house furnishings, piano felts, blankets, and clothing repellent to moths and carpet beetles and kills both. On this, I give a 6-year warranty with each job.

Then I can flame-proof furnishings and fabrics with **Duraguard** which prevents fire-starts from cigarettes, candles, etc. My **Spotcraft** service takes out clinging spots and stains. I have a **Tuftcraft** service to repair holes from cigarette burns, moth damage, etc. often saving the furniture or floor covering.

With six services, I have six chances to get business from homes, hotels, theaters, clubs, motels, offices and institutions. And, when we are giving one service, the customer often adds other services while we're on the job.

The Yale Divinity School gave soiled pillows to me and two competitors to see who could do the best work. I got the job...85 long pew pillows and they were delighted with results.

That first year, full time on my own, was just wonderful. No bosses, no monotonous office or plant routine, no job uncertainty, no layoffs, no waiting for raises, no income limit. That was a relief.

I was free to do what I wanted and my income went up automatically with my efforts. I had security, the prestige of business ownership and my family was enjoying a fuller life.

Then old "bad luck" hit again. My wife broke a leg in three places and was in a wheel chair and on crutches five months. Then she injured her back and was hospitalized five weeks for another operation.

That wasn't enough. The week she came home, a dog bite sent me to the hospital for five weeks and I was confined to bed for another two months.

For a year, I was unable to give much attention to my business and the hospital and doctor bills kept piling up. Thanks to my Duraclean dealership, I pulled through and soon began to whittle down my debts.

It wasn't long till I was back on my feet and orders kept flowing in to give us the kind of life my family had wanted.

In my business, orders come from many sources including magazine ad leads which my headquarters sends me. Furniture, carpet and department stores, insurance adjusters, upholsterers and decorators refer jobs to me from their customers. Car dealers take orders and have their own used-car interiors **Duracleaned** for quicker resale.

My headquarters furnishes pre-tested newspaper and yellow-page ads, radio commercials, store display cards, many proven sales aids and a mailing program. We also have an order-producing telephone plan.

Our latest order getter is a full-color seven minute film we show in a prospect's home or office. One dealer closed 19 jobs from 21 calls. I haven't done quite that well.

At meetings of clubs, churches and charities, I make demonstrations and show my seven-minute film. I pay the club 10% on orders received in thirty days.

This is a highly profitable business since I make a profit on both labor and materials. I employ two servicemen. On big jobs or in rush periods I still do some servicing myself. Many dealers just line up the jobs and have several crews working. Very soon I expect to do just that.

My best week's profit (with two men) is $700.

The service is easy to learn and so easy to do that some women dealers do servicing. The company was glad I had no cleaning experience so I didn't have to "unlearn" old scrubbing methods.

Dealers used to learn exclusively from instruction books, but now our headquarters holds regional meetings, training schools and conventions where we perfect our service, get valuable sales ideas and swap experiences with other Duraclean dealers.

The Duraclean organization is like one big happy family. We all work together. It's stimulating to attend meetings and they take a personal interest in the success of every dealer.

They place our national advertising in House & Garden, McCall's, House Beautiful and other quality magazines. They have an experienced dealer give us our first training, show us how he gets customers and help us get started.

Our service is rendered right on the premises so the customer can use furnishings again in a few hours. They like this convenience.

I have now also opened up a shop for prestige and have a truck to pick up small jobs; but my wife still handles phone calls at home. Many dealers have offices or shops but I know many who started from their homes. It doesn't take long to get established. One job a day brings a good starting income.

One job brings another. We did a rug and divan for a lady in the poor section of town. A $222 job in a large home came from her recommendation. From this job came two more new customers.

On 3 out of 5 jobs, the customer orders more service to be done then or at a future date.

Our business grows constantly, month by month, and the growth is unlimited. Government figures show that service businesses like mine are growing faster than stores or industries. In upholstery and rug cleaning alone, government figures show a national potential of $750 million. And I have five other fast-growing and profitable services.

We are getting a big increase in demand from the new synthetic fabrics and light colors which soil much faster. I have the perfect process for cleaning these delicate fabrics safely.

I not only now have the kind of income I have always wanted...and it continues to get bigger...but the growing value of my dealership is increasing my net worth. One Duraclean dealer, Fuller Munroe, after only 12 months sold his dealership for ten times his cost. Leo Lubel, after 30 months sold for $7,116 more than he paid.

One satisfaction I have is that if I get seriously ill or have to move, the company will help me find a buyer and profitably sell my dealership.

It doesn't take a lot of money to get started in this business either. If a man is honest, reliable and willing to work, the company will help finance him...let him pay out of his sales. Less than a day's servicing easily meets monthly payments. A new dealer should invest a few hundred dollars of his own to show his good faith.

The company included enough materials with my dealership to return its entire cost.

My family's new standard of living restores the faith I almost lost. We can see our way to sending our four children to college. After so many years struggle against fate, Duraclean has given us comparative luxury. My wife even enjoys her regular pay check for handling phone calls.

I am so grateful for this opportunity I found, that I am glad to tell my experiences to others who may be looking for a happier and more fruitful life.

This all came from my mailing in a coupon from a Duraclean ad and my luck that my location was still open for a dealership.

Tony Nobrega

No Obligation to Find Out

Yes, Tony mailed a coupon just like the one below ...and we too are mighty glad he did. We are happy to have him in the family of Duraclean Dealers.

We still have open areas here and there throughout the U.S.A., Canada and other countries. If there is no Duraclean dealer in your location, you may be just the person we are looking for.

Mail the coupon today, now, and we'll mail you all the facts including a free 24 page illustrated booklet with **no obligation**. No salesman will call to bother you. You can then decide if you want the improvement in your life that Tony Nobrega enjoys.

Duraclean Co., 6-707 Duraclean Bldg., Deerfield, Illinois 60015

Duraclean Co., 6-707, Duraclean Bldg.
Deerfield, Illinois 60015

With no obligation, mail letter with 24 page illustrated booklet fully explaining how I can increase my income and family security with a Duraclean dealership. No salesman will call.

Name_____

Address_____

City_____ State_____ Zip____

The California Western runs *Skunk* railcars like this one and a steam-operated train, *Super Skunk*. For details query the railroad, Fort Bragg, Calif. 95437.
Ed Freitas, The Noyo Chief, Union Lumber Co., Fort Bragg, Calif.

planned but will be moved to deep water, out of the way of boats. Her trailing trucks, when lifted out of the water recently, revealed rust an inch thick.

Steam Shortlines

Florida Southwestern, a steam shortline, is converting from 2- to 3-foot gage and will sell its 2-foot equipment, reports Fred W. Perry, chief mechanical officer, 44 S. Whitney St., St. Augustine, Fla. 32804. "Last fall," he writes, "we built a new machine shop, added larger machine tools, and are now equipped to design and build locomotives and passenger cars of various sizes. Right now we are building 3-foot scale working duplicates of two Southern Railway Pacifics, Nos. 1408 and 1409, which are on permanent display at the Smithsonian Institution in Washington, D.C. Our versions will be 52 feet long as compared with the originals' 92 feet. These 3-footers will be masterpieces of minute-detail duplication, with performance to match."

As we go to press, a famous old steam engine of Graham County Railroad Co. opens its season for steam train rides in the Great Smoky Mountains at Fontana Village Resort, Fontana Dam, N.C. 28733. The round trip is a 9-mile excursion with close-up views of high mountains and deep valleys. This shortline has provided, since 1925, industrial transportation for the lumber industries of western North Carolina, operating between the county seat of Robbinsville, on U.S. Highway 129, and Topton, on U.S. Highway 19. The industrial service this year is supplemented by sightseeing passenger cars, plus other attractions at Fontana Village Resort.

Livonia, Avon & Lakeville is operating steam passenger service out of Livonia, N.Y., with ex-Elk River Coke & Lumber 2-8-2 No. 17 (originally Savannah & Atlantic No. 504), reports Bruce Collins, 1713 Gasche St., Wooster, Ohio 44691. He asks: "When and how often does D&RGW dispatch freight over narrow-gage trackage?"

Gage of the 1¼-mile Ashland Community Enterprises railroad is 42″, not 36″ as Frank Donovan stated in our May issue. Steam train runs daily thru Sept. 15th, week-ends only between that date and Oct. 30th. Besides Coal Tunnel Mine on the property there are a Canadian steam loco and, spotted nearby, J. P. Morgan's private railroad car. For details contact Ashland Community Enterprises, Ashland, Pa. 17921.

Add to the list of steam shortlines (May issue) the Pinconning & Blind River Railroad, Fairview, Mich., hauling lumber in winter and tourists in summer over 2½ miles of 16″-gage track with 4-6-4 steamer and several diesels. E. C. Eddy is owner and chief engineer, reports Alfred H. Feldmann, 1095 Lenox Ave., Detroit, Mich. 48215.

The following news comes from William L. Reddy, 96 Delray Ave., West Seneca Branch, Buffalo, N.Y. 14224:

The Glenbow Foundation which opened last summer at Calgary, Alta., Canada, is operating ex-CPR 0-6-0 No. 6144, obtained from Canmore Mines, and 4 coaches from the abandoned Morrisey, Fernie & Michael, on about 4,000 feet of track. For some peculiar reason, the steam engine has been camouflaged to look like a diesel. Also on the property are MF&M flatcar 53, Northern Alberta Ry. combine No. 3, two ex-CPR cars: crane car 401922 and colonist car 2658.

In 1963 the Huntsville & Lake of Bays Ry. was transferred to Pinafore Park in St. Thomas, Ont., Canada (the place where world-famous circus elephant Jumbo was killed by a Grand Trunk freight train long ago). They have two steam locos in service. (We will run an illustrated article on this line in near future.)

Sandy Pond & Ontario at Sandy Creek, N.Y., north of Syracuse, N.Y., still has two serviceable locos: ex- Narragansett Pier No. 11 and ex-Bath & Hammondsport No. 38. Also some saddle-tank locos, an ex-logging engine from Virginia, and a mining engine

from New Mexico. The trolley equipment at Sandy Creek was sent to Magee Transportation Museum, Bloomsburg, Pa. (We had heard rumors that the SP&O was abandoned; they didn't answer Frank Donovan's query.)

Postcard Collectors

Your assistant editor, Art Knowles, is now a deltiologist. In fact, he has been for some time but recently joined a club catering to this hobby. *You* may be a deltiologist, too. Deltiology (see the latest *Webster's Dictionary*) is a fancy name for collecting picture postcards, based on the Greek word *delti*, meaning a small tablet, the nearest approach to postcard in ancient times. Some fellows claim to have as many as a million cards apiece!

Club members, many of them railfans, save postcards in various categories: old or new, type of card, manufacturer or publisher, and especially by subject. The subjects are endless: states, cities, monuments, events, birds, animals, disasters, streetcars, world's fairs, famous people, holidays, etc. Railroad station pictures are very popular. Years ago just about every city and town had a railroad depot as a main point of interest and bragged about it. No community amounted to much if it didn't have at least one postcard view of its depot. Countless numbers of these cards were printed and circulated far and wide. Many are preserved in collectors' files; others lie forgotten in family albums in the attic. Some station cards include views of locomotives, trains, and other railroad equipment and installations. Postcard shots of train wrecks, especially freak wrecks, have a wide appeal. Locomotive postcards head the list for railfans.

Metropolitan Post Card Collectors Club, organized Nov. 1, 1946, in New York and now having members in most of the 50 states as well as overseas, is the oldest and largest group of its kind. This club, like many others throughout the land, meets once a month and issues a monthly bulletin that tells where members can meet and exchange cards, plus news of the hobby. It will hold a 20th annual exhibit next November. Dues are $2 a year. Joseph Nardone, secretary, is member No. 1; Art Knowles is 806. For a membership application write Joe at 436 E. 9th Street, New York, N.Y. 10009. Art wants to hear from deltiologists with unusual collections of railroad-picture cards. Write to him at *Railroad Magazine*, 205 E. 42nd St., New York, N.Y. 10017. ●

Vermont Railroading

F. Nelson Blount's Green Mountain RR., which has been operating slightly

(*Continued on page 55*)

LEARN HOW SCIENCE TACKLES BALDNESS

Hair Restored on Bald Scalps!

Money Back Guarantee

YOU WILL BE AMAZED as you read about the new technique developed by medical science which successfully restores living, healthy hair to once-bald areas of the scalp. Even male pattern baldness... the cause of the great majority of hair loss... can be treated by this dynamic method!

IN THE PAST, the most common cure for baldness was a toupee or hairpiece. However, covering up the problem did not solve it.

AT LAST, through the efforts of modern science, you can stop wasting hard-earned money on shampoos, hairpieces, or other so-called "treatments" that do not work!

SOUNDS ASTONISHING? Indeed it is! If you still have some hair on your head, and are not the victim of scalp disease, mail this no-risk coupon TODAY!

YORK RESEARCH *Dept. 3869*
6311 Yucca St., Hollywood, Calif. 90028

YES! I would like to learn about this amazing development in the treatment of baldness. I enclose $2.98, which I understand will be completely refunded if I am not satisfied.

Name _____

Address _____

City _____ State _____ Zip _____

Grand Trunk Pacific Engines

GTP Numbers	CNR Numbers	Type	Builder	Built	Cyls.	Dri.	Ex-GTR Nos.
1		2-6-0	GTR	1890	18x26	63	2472
2		2-6-0	GTR	1880	18x26	63	2396
3		2-6-0	GTR	1880	18x26	63	2399
4		2-6-0	GTR	1880	18x26	63	2400
5		2-6-0	GTR	1881	18x26	63	2403
6		2-6-0	GTR	1881	18x26	63	2405
7		2-6-0	GTR	1881	18x26	63	2413
8		2-6-0	GTR	1881	18x26	63	2415
9		2-6-0	GTR	1882	18x26	63	2416
10		2-6-0	GTR	1882	18x26	63	2417
11		2-6-0	GTR	1882	18x26	63	2419
12		2-6-0	GTR	1882	18x26	63	2421
13		2-6-0	GTR	1882	18x26	63	2425
14		2-6-0	GTR	1882	18x26	63	2426
15		2-6-0	GTR	1882	18x26	63	2429
16		2-6-0	Rhode Isl.	1881	18x26	63	2390
17		2-6-0	Rhode Isl.	1887	18x24	54	2354
18		2-6-0	Baldwin	1894	18x24	57	2356
45	490	2-6-0	Baldwin	1895	18x24	56	2358
46	491	2-6-0	Baldwin	1895	18x24	56	2359
47	492	2-6-0	Baldwin	1896	18x24	56	2360
48	493	2-6 0	Baldwin	1896	18x24	56	2361
49	494	2-6-0	Baldwin	1896	18x24	56	2362
50	324	4-4-0	GTR	1899	18x24	69	582/454
51-80	325-354	4-4-0	Montreal	1908	18x24	69	
81-107	355-381	4-4-0	Can. Fdry.	1908	18x24	69	
108-125	382-399	4-4-0	Montreal	1909	18x24	69	
200-224	870-889	2-6-0	Kingston	1909	22x26	63	
394-399	423-428	2-6-0	Montreal	1911	19x26	51	
400-409	7532-7541	0-6-0	Montreal	1911	20x26	51	
500-509	renumbered—orig. 15½&26x28" Ex GTR 950-959/6						
800-809	1971-1980	2-8-0	Baldwin	1899	20x28	56	
600-619	1423-1442	4-6-0	Can. Fdry.	1910	19x26	63	
620-629	1443-1452	4-6-0	Kingston	1910	19x26	63	
810-829	2687-2706	2-8-0	Montreal	1911	21½x30	63	
830-844	2707-2721	2-8-0	Kingston	1912	23x30	63	
845-869	2722-2746	2-8-0	Montreal	1912	23x30	63	
1100-1114	5612-5626	4-6-2	Montreal	1911	22x28	73	

Roster of Grand Trunk Pacific (now part of Canadian National system) comes from Charles E. Fisher (20 Wilde Rd., Waban, Mass. 02168), president and editor of Railway & Locomotive Historical Society, Inc. Notes: GTP Nos. 500-509 were immediately renumbered 800-809. Originally Grand Trunk Ry. 950-959, renumbered 641-650, they were built with 15½x26x28" cylinders but rebuilt with 20x28" cylinders and finally were renumbered CNR 1971-1980. The following were built in 1918: GTP 51, 52, 64, 78, 80, 84-85, 106, 107, and 113, which were formerly Canadian Northern 70 thru 79 respectively ●

Photos by Wilbur T. Golson, 5465 Washington Ave., Baton Rouge, La. 70806

Reader Railroad officials and fans gather at the depot in Reader, Arkkansas, for first scheduled run of the recently acquired No. 1702. (Below) T.W.M. Long, president and general manager of the 23.5-mile road, is proud of its steam operation.

Mrs. Sallye N. Mosely, agent of Reader Railroad since '43,. sells Ron Ziel's record and two books at souvenir shop in the depot.

more than a year, has just bought Delaware & Hudson yard switcher 3036 (Alco, 1947) and renumbered her 306, to supplement its ex-Rutland road switcher, No. 405, reports Donald M. Robinson, who designed the herald that adorns Green Mountain boxcars, 408 Davis St., Greenfield, Mass. 01301. The road has leased 16 steel boxcars and soon will lease 4 covered hoppers.

"During 1965," Don writes, "we operated under difficulties from the Boston & Maine, but now we have an agreement with them to interchange traffic at Bellows Falls and to permit our equipment to move to and from the enginehouse and yard without their switcher handling it. Our ex-Canadian Pacific 4-6-2, class G-5, recently retubed, is running on the Steamtown U.S.A. train, which uses our tracks."

The future of steam-powered freight on the Green Mountain seems bleak to Frederick Bailey, Bellows Falls Rd., Walpole, N.H. "With two diesels on hand," he laments, "there is little chance of freight being hauled by Consolidation 15, Mogul 89, or Pacific 1278.

A turntable is being installed at Riverside, Vt., future home of Steamtown U.S.A., and display tracks are being laid for use in moving.

Vermont Railway, operating over the old Rutland line between Burlington, Vt., and Bennington, Vt., has bought a new GM 1600-hp diesel, to be delivered this August, and 150 steel freight cars, reports Stephen M. Mumley, sec.-treas. of Champlain Valley Chapter, NRHS, Burlington, Vt. 05401. The railway also has built a new two-stall roundhouse in Rutland and purchased ex-NYS&W No. 250 for extra motive power but found her in bad shape and is using her for parts instead. (In fact, *all* old NYS&W steamers are inoperable.)

Setouts and Pickups

Coming next month: a long, alltime, steam roster of the Intercolonial Ry. (now CNR), to be followed by present-day rosters of Jersey Central and South Dakota shortlines.

The 891-mile Kansas City Southern has been recognized at the annual banquet of Trinity Valley Railfans, Inc., 3828 Timberline Dr., S., Fort Worth, Texas, as the year's outstanding railroad for its aggressive solicitation of passenger business, its well-equipped and well-maintained trains, and its willingness to run special trains, etc. At the same banquet John W. Barriger, president of M-K-T, was presented with a Silver Spike trophy as the year's foremost individual railroad man, for his successful efforts in saving the Katy from imminent bankruptcy.

Forth Worth & Denver Railway diesel-powered train meets northbound extra 409, the last steam train on the FW&D, at Henrietta, Texas.
Photo by Everett L. DeGolyer, Jr., 1008 Two Eleven North Ervay, Dallas, Texas

Wanted by Clem Fisher, co-author of book, *Oil Lamps and Iron Ponies,* 680 14th St., Oakland, Calif. 94612, for a new book he is writing: info., blueprints, and pix of gas-elec. passenger motors, McKeen cars, Mack direct-drive railcars, etc. Enclose a self-addressed stamped env. for any material you send him as loan.

The engineering-transportation Library of the University of Michigan at Ann Arbor is no longer interested in receiving railroadiana, except for annual reports and journals, writes Robert T. Freese, librarian.

Al Bennet reminded us that we omitted the Wilkes-Barre Connecting RR. from our shortlines of Pennsylvania rosters. This road owns no equipment.

Fans interested in joining National Asso. of Timetable Collectors should contact Howard Sanford, 59 Hellam Dr., Mechanicsburg, Pa., 1705, director of circulation. Each member gets a membership card, roster of members, monthly *Newsletter,* and special releases of articles on tts. of various roads. Dues, $2 a year.

"Union Pacific's Fast Mail at Hermosa, Wyo., in 1955," reproduction of a watercolor by Howard Fogg in full color, 15x20" on heavy paper stock suitable for framing, is available at $4.95 postpaid in heavy mailing tube from Intermountain Chapter of NRHS, Box 5181, Terminal Annex, Denver, Colo. 80217. This chapter's newest piece of equipment, just received from Topeka, is the *Navajo,* a stainless-steel sleeping passenger, and observation car built for the Santa Fe's original *Super Chief.* Its first regular run, tentatively set for early July, is a trip to inspect Santa Fe operations in Albuquerque.

S. King, 62 Yarmouth Rd., Toronto, Canada, wants 8x10 steam pix, Ontario Northland 700 and 1100 classes.

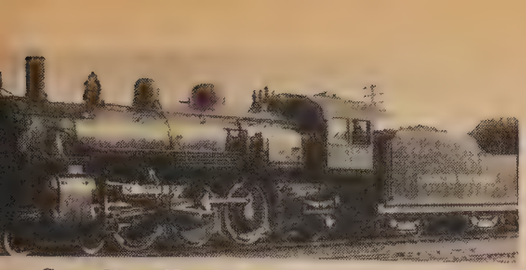
Silver Anniversary convention of the interdenominational Railroad Evangelistic Association, Inc., will be held at the Westminster Hotel in Winona Lake, Ind., Aug. 16-19. "Good food, good fellowship, reasonable rates." For details and a free sample copy of monthly magazine, *The Railroad Evangelist,* write Railroad Convention, 191 Palmer Ave., Staten Island, N.Y. 10302. The Association was founded in 1931 by Luther S. Harkey, an ACL engineer.

Old Canadian Pacific roster in our May issue had a listing of "Tractive Effort" which was really a listing of Weight, writes Gordon D. Jomini, 160 Ave. du Plateau, Grand Mere, Que., Canada. Thanks for the correction.

Information on "foreign" railway equipment operated by the Boston & Maine in the early 1940's is wanted by John R. Williams, Jr., 8 Hovey Lane, Hanover, N.H. He asks about the parent road of Mikado types with B&M herald in 2800 series, also about numbers and disposition of Reading passenger equipment assigned by B&M.

"We are collecting historical data on American railroading (correspondence, ledgers, journals, photos, maps, annual reports, timetables, etc.)" writes Gene M. Gressley, director, Transportation History Foundation, University of Wyoming Library, Box 3334, Laramie, Wyo. 82070. "We will place any restriction on the use of a collection that a donor desires and we pay packing and shipping charges on material sent to us collect. A few years ago we moved into a new library, where we have excellent facilities for housing our collection.

Work crews busily put the finishing touches on two spectacular trestles on the Roaring Camp & Big Trees Narrow-Gauge Railroad, at Felton, California. They finished the job in time for this season's opening of the 3.5-mile, historic, steam-powered railroad.



Canadian Northern Nos. 702 and 1394.
Canadian National photos

Since much pertinent data already has been lost or destroyed, we invite people to consider our facilities."

Jim Scribbins, No. 38 in our *Interesting Railfans* series, denies the rumor that the book he is writing is about Mexican diesels.

History of the Strasburg's 0-4-0 No. 4 comes from Warren D. Stowman, 2102 Eastburn Ave., Philadelphia, Pa. 19138. Baldwin built her for the Philadelphia & Reading in March, 1903. Builder's number 21831; road number 1187, class A-4a. Original specifications: cylinders 16x24", diameter of driving wheels 44", tractive force 23,740 pounds. The P&R Shops rebuilt her in October, 1906 (the exact date of the first issue of our magazine!) to class A-4b, with 16x24" cylinders, 50" drivers, and 20,890 t.f. In 1946 she was sold to E. & G. Brook Iron Co., later taken over by Colorado Fuel & Iron Corp.

Speaking of long periods of railroad service, consider James Green, who lives at 3240 Eastern, S.E., Grand Rapids, Mich., and has worked for the Pere Marquette and its successor, the Chesapeake & Ohio, for 61 years. He first hired out to PM in August, 1905, and is now a powerhouse superintendent. This info, comes from H. Howard Noble, president of the steam-operated Cadillac & Lake City Ry., Box 201, Lake City, Mich. 49651.

Message from Gerald A. Dee, 40 Daisy St., Essenden, Victoria, Australia: "Out here many of us are reading *Railroad Magazine*. Once Australia was very British, but recently has swung across to American practice. This applies especially to railfans who, like myself, can never read enough about the big power of the U.S. prior to advent of the diesel."

The following letter was written (in English) by Adyleu Costa, R.S. Januario 177, Apt. 301, Niteroi, E. Rio, Brazil: "I have an enthusiastic interest in the United States and especially in your locomotives and *Railroad Magazine*. I would be grateful to any reader who sends me an old issue of *Railroad Magazine*."

Canadian Northern Engines

Road Nos.	Type	Builder	Bldrs. Nos.	Built	Cyls.	Dri.
2	4-4-0	Kingston	454	1896	17x24	63
3	"	"	456	1896	17x24	63
10, 11	"	"	337, 338	1888	17x24	62
12	"	"	388	1888	"	62
13-17	"	Baldwin	?	———	"	62
19	"	"	?	———	"	62
21, 22	"	Schenectady	?	———	"	62
23	"	Baldwin	?	1887	18x24	62
26	"	Hinkley	?	———	18x24	62
61, 62	"	Kingston	383, 384	1889	17x24	66
63	"	Rhode Island	?	1887	18x24	69
64	"	Schenectady	2388	1887	18x24	69
65	"	Manchester	1388	1887	17½x24	68
101	2-6-0	Richmond	2498	1893	19x24	50
106	"	Gr. Trunk	1071	1881	18x26	62
107-109	"	Kingston	365-369	1889	18x24	57
112	"	Baldwin	?	———	18x24	54
113, 114	"	"	?	———	18x24	56
116	"	Brooks	40654	1906	19x24	50
200	0-8-0	Baldwin	?	1894	20x24	50
300	0-6-0	"	?	———	17x24	54
301, 302	"	Pittsburgh	29557-'8	1904	19x26	50
303-306	"	Canada Fdry.	845-848	1907	"	50
307	"	Baldwin	27787	1906	"	50
308, 309	"	Pittsburgh	44392, 3	1907	"	50
310, 311	"	Kingston	405, 406	1892	"	50
312-323	"	Montreal	48297-'308	1910	"	50
324-333	"	"	50219-'228	1911	"	50
337-346	"	Kingston	1005-1014	1912	"	50
347-351	"	"	1043-1047	1912	"	50
352-371	"	"	1173-1192	1913-'4	"	50
400-409	"	"	1525-1534	1918	21x26	51
410-434	"	"	?	1919		
500-502	"	"	?	1918	21x28	51
1000-1002	4-6-0	Pittsburgh	?	———	18x24	50
1003	"	Allegheny	?	1891	18x24	?
1005	"	Pittsburgh	?	1884	?	?
1006	"	"	?	———	?	?
1007-1009	"	"	?	1893	18x24	51
1010-1011	"	Rhode Island	?	1891	18x24	?
1012-1014	"	PRR-Indplis	?	1891	18x22	50
1015	"	Pittsburgh	?	———	18x24	56
1016	"	Brooks	?	———	18x24	56
1017-1018	"	Rhode Island	2390&2392	1890	18x24	58
1019-1020	"	"	2388&2411	1890	18x24	58
1021-1024	"	"	?	———	18x24	57
1025-1026	"	"	?	———	18x24	57
1031	"	Baldwin	?	———	18x24	54
1032	"	Brooks	?	———	18x24	56
1033	"	"	?	———	18x24	57
1034-1038	"	Canada Fdry.	836-840	1905	19x24	57
1039-1041	"	Brooks	1262-3&1259	1887	19x24	56
1043-1047	"	Baldwin	19506, 7		19x21	56
			19624-'6	1901	19x21	56
1048-1052	"	Kingston	542-546	1902	19x24	56
1053-1057	"	"	561-565	"	19x24	56
1058-1082	"	"	586-610	"	19x24	56
1083-1102	"	Canada Fdry.	849-868	1906	19x26	57
1111-1130	"	Montreal	50809-'828	1912	20x24	63
1131-1160	"	"	52560-'589	1913	20x24	63
1161-1165	"	"	52651-'656	1913	20x24	63
1200, 1201	"	Brooks	?	———	18x24	63
1202-1206	"	Baldwin	?	———	"	62
1207, 1208	"	Brooks	27214-'215	1903	"	63
1209, 1210	"	"	30143-'144	1904	"	63
1211-1220	"	Montreal	39782-'791	1906	"	63
1221-1230	"	Kingston	736-745	1906	"	63
1231-1245	"	"	751-765	1907	"	63
1246-1260	"	Canada Fdry.	869-883	1907	"	63
1261, 1262	"	Brooks	26880-'881	1903	20x26	63
1263-1267	"	"	30184-'188	1904	"	63
1268-1272	"	Montreal	30138-'172	1905	"	63
1273-1277	"	"	30562-'566	1905	"	63
1278-1287	"	"	42652-'661	1907	"	63
1288-1312	"	"	44775-'799	1908	"	63
1354-1384	"	"	50778-'808	1912	22x26	63
1323-1342	"	"	49876-'895	1911	22x26	63
1313-1322	"	"	48309-'318	1910	20x26	63
1385-1394	"	"	52643-'652	1913	22x26	63
1395-1409	"	"	52590-'604	1913	22x26	63
700-703	4-6-2	"	52255-'258	1913	23x28	69
2010-2024	2-8-0	Kingston	766-780	1907	23x26	57
2025-2064	"	"	801-840	1908	21x26	57
2065-2089	"	Canada Fdry.	884-908	1908	"	57
2090-2103	"	Montreal	42726-'739	1907	"	57
2104-2123	"	"	44576-'595	1909	"	57
2124	"	"	42740	1907	"	57
2130-2154	"	Kingston	1048-1072	1912	23x26	57
2155-2179	"	"	?	1912	24x32	63
2385-2399	"	Canada Fdry.	?	1912	"	63
2400-2424	"	"	?	1914	"	63
2425-2454	"	"	?	1918	"	63
2465-2514	"	Montreal	59412-'461	1918	"	63

Roster shows Canadian Northern power from 1910-1920, when the road became part of the Canadian National system. Courtesy of Charles E. Fisher (20 Wilde Rd., Waban, Mass.), president and editor of Railway & Locomotive Historical Society, Inc. Engine 1013 was built in 1893.

The Age Limit

fiction story by

FRANK L. PACKARD

DAN MacCAFFERY was an engineer on the Transcontinental, one of the oldtimers. Picture him in the cab of the 304, leaning out the window, way out, thin as a bent toothpick, and pounding down the gorge and around into the straight track, making for the Big Cloud yards in the Canadian Rockies with a string of buff-colored coaches.

What you could see sticking out of the cab over the whirling rod was a black, greasy, peaked cap surmounting a fringe of gray hair, and a wizened face, with a round little nose and squinted blue eyes.

Everybody liked Dan, with his smile and his cheery way of puckering up his lips sympathetically as he listened maybe to a hard-luck story. Yes, everybody liked Dan—but they swore by his wife. Even the worst characters in Big Cloud—the hangers-on and touts for the gambling hells and dives—used to speak of the little old lady with a sort of veneration.

The MacCafferys had sent their only child, Dan, to school in the East, pinching themselves to give him an education and a start. Not that the mother

had any notion that railroading, with its overalls and dirt, was beneath her—far from it! She was proud of Dan, proud of his work and his record. But she wanted her son to do something even bigger, to make a name for himself.

Young Dan made a name for himself all right! When the kid finished his education he went into a bank and backed his brain development against the stock market—with five thousand dollars of the bank's money! His parents managed to get him off, Mrs. MacCaffery with her sweet face and Dan with his grim honesty. The bank didn't prosecute. A year later the boy was drowned in a ferryboat accident; and old Dan had been paying up ever since.

He was always paying up. Five thousand dollars, even in installments for a lot of years, didn't leave much from his monthly pay check back in those days.

He threatened to drop the three benefit orders he belonged to, but the wife talked him out of that. "On account of the insurance," she said, but really because she knew that Dan and his lodge rooms and regalias and worshipful titles were part and parcel of each other.

Somehow the couple got along, without much sign of the hurt that was deeper than mere dollars and cents. Mrs. MacCaffery became grayer, while her husband's hair narrowed to a fringe like a broken tonsure above his ears.

Dan was handling the throttle on a local passenger run when things broke loose in the East. A flurry in Wall Street. But Wall Street was a long way from the Rockies, and there didn't seem to be anything intimate enough in a battle of brokers and magnates to stir up excitement on the Hill Division.

The division, generally speaking, had about all it could do to mind its own affairs. For the Rockies, even though conquered, were always in an incipient state of insurrection that kept the Operating, the Motive Power, and the Maintenance of Way departments very busy.

When the smoke cleared away in the East, the Hill Division and the town of Big Cloud forgot for a while their bridge troubles, washouts, and slides. Something else had come up. The division superintendent, Royal Carleton, in his swivel chair, looked at Tommy Regan, the fat little master mechanic. They both had learned that as a result of the shenanigans on Wall Street their railroad system, the Transcontinental, was under new management.

Regan pulled on his straggly brown mustache and asked: "Who in hell is H. Herrington Campbell? What's he like, anyhow?"

"Our new general manager," said the super, "represents the PM&K crowd, Tommy. Makes quite an amalgamation, doesn't it—direct Eastern tidewater connections, what? They're a younger lot, for the most part, progressive too, and sharp as a new chisel."

"I don't give a damn who owns the stock," said Regan. "It's the guy with the overgrown name that interests me."

Carleton walked to the window and gazed out over the yards for a moment. Then he faced the master mechanic. "I

know Campbell—and most of the others, too. They're a cold, money-grubbing lot. I fancy we'll see some changes out here."

"Only last week," said the master mechanic, "I turned down an offer from the Northern Pacific. "May be I should give it a second thought."

Carleton laughed. "Your job is safe." More than one big road had made tempting offers for the services of the cool-eyed M.M. of the Hill Division, who was somewhat of an idol to his men, down to the last car tink. "Mine, too," the super said. "When I go, you go—and as the PM&K have been after me before, I guess they'll let me alone on their payroll."

"What changes do you think we'll get?" Regan asked gruffly.

"I don't know," said the super. "New crowd, new ways. We'll see."

ABOUT the first official act of the new directors was a trip to look over the property they had just acquired. If the Hill Division resented the change in ownership, there was no sign of it in Big Cloud when the word went out of what was coming. On the contrary, everybody figured to make a holiday affair of it, for the special train was to lay off there until afternoon to give the visitors a chance to see the shops. It was generally understood that they were to be given the best the Hill Division had to offer.

Regan kept his pet engine, the 1608, in the roundhouse, tinkering over her for two days, and sent for Dan MacCaffery. There'd been some speculation among the engine crews as to who'd get the run, and all were hot for the honor.

Regan squinted at old Dan and then at the 1608 on the pit beside him. "How do you think she looks?"

The veteran ran his eyes wistfully over the racer. "She'll do you proud, Regan," he said.

"And you, too, Dan. I've got *you* slated for the run."

"Me?" said MacCaffery, his wizened face lighting up quickly.

"Yes, sure! It's coming to you, ain't it? You're the senior engineer on this division. And Riley's doing the same for Pete Chartrand, putting him in the aisles. Pete's a darned good conductor. What?"

Old Dan beamed. "Say, the missus'll be glad when I tell her."

"Go tell her then."

Not a very big thing—to pull the latch of the Directors' Special? Nothing to make a fuss over? Well, no, perhaps not—not unless you were a railroad man. It meant quite a bit to Dan MacCaffery, though.

A program had been mapped out. Regan, being master mechanic, was to do the honors of the shops, while Superintendent Carleton was to make the run up through the Rockies and over the division with the new directors. However, at the last moment a telegram sent the super flying East to a brother's sick bed, so the whole job of playing host fell to Tommy Regan.

The master mechanic did his best. He fished out his black Sunday suit, wriggled into a boiled shirt and a stiff collar, and was down on the platform an hour before the train was due.

Somehow he had got it into his head that he was going on his mettle before a crowd of smart railroaders. But when he found there wasn't a practical railroad man among them—bar H. Herrington Campbell, to whom he promptly took a dislike—Regan experienced a sort of pitying contempt which had the effect of putting him at ease.

Inspect the shops? Not at all. They were out for a joy ride across the continent and the fun there was in it.

"How long are we staying here? Three hours? Wow!" boomed a big fellow stretching his arms lazily.

"Let's paint the old town, boys," wheezed an asthmatic man of fifty, who sported an enormous gold watch chain. "Come on, look the natives over!"

But the new general manager was cold. Spare built, with sharp black eyes, Mr. Campbell had a face like a hawk and thin lips.

"Go ahead and amuse yourselves," he said. "We pull out at twelve-thirty sharp." Then to Regan, curtly: "We'll look the equipment and shops over, Mr. Regan."

"Yes, sure," agreed the master mechanic and he led the way across the tracks toward the roundhouse.

The whole thing was different from the way he'd figured it out beforehand, but Regan set out to make himself agreeable—and the new boss listened. Here and there Mr. Campbell shot out a question and lapsed into silence again.

THEY inspected everything, and when they got through, Regan had about as good an idea of what impression it had made on Mr. Campbell as he had when he started out—which is to say, none at all. The general manager just listened. Regan did all the talking.

Regan didn't need to be told that the other man knew railroading from the ground up; he could feel it. He didn't need to be told, either, that the new brass collar was more of a high-geared efficiency machine than a man; he could feel that, too.

One word of praise Regan wanted, not for himself but for the things he loved and worked over. But the one word, where a thousand were due, he did not get.

It was train time when they finished. The 1608, with Dan MacCaffery, half out of the cab as usual, had backed down and coupled onto the special. Regan and the new general manager came along the platform from the upper freight sheds and reached the big, powerful racer.

"I dunno where you'll beat that, East or West," Regan said proudly, with a wave of his hand at the 1608. "Wish we had more of that type out here. We could use 'em. What do you think of her, Mr. Campbell, *h'm*?"

The G.M. didn't appear to take much notice of the masterpiece of machine design. His eyes traveled over the engine and fixed on Dan MacCaffery in the cab window.

Dan had an old, but spotless, suit of overalls on. They were spotless because Mrs. MacCaffery had worked to make them spotless. Dan's wizened face wore a genial smile that would have got an instant response from anybody—except H. Herrington Campbell.

The big chief didn't smile, neither did he answer Regan's question. "How old are you?" he asked the hogger bluntly.

"Me?" said Dan, taken aback for a moment. "Sixty-one, I guess—no, sixty-two."

Mr. Campbell ignored the engineer's answer and kept walking along the platform. He glanced up as Pete Chartrand, the senior conductor, gray-haired and gray-bearded but dapper in his blue uniform and brass buttons, hurried by toward the cab with the green tissue copy of the engineer's orders in his hand.

Regan opened his mouth to say something but snapped his jaw shut like a steel trap. The last bit of enthusiasm had oozed out of the usually good-natured master mechanic. Two days' tinkering with the 1608, the division all keyed up to a smile, everybody trying to do his best to please, a dozen little intimate plans talked over and worked out—were all now a matter of earnest and savage regret to Regan.

IT WAS a pretty swell train, the Directors' Special. The crowd sent her off with a burst of cheering that died

out long before the markers were lost to view around a butte. Yes, she was about the finest thing that had ever decorated the trainsheet of the Hill Division. The 1608 on the front end was gold-leafed, and shining like a mirror from polished steel and brass.

But for all that, barring the first hour or so out of Big Cloud, trouble dogged the Directors' Special that afternoon. Everything seemed to go wrong—except the 1608. The engine ran as smooth as a full-jeweled watch, when old Dan, for the mix-up behind him, could run her at all.

The coupling on the diner broke—that started it. When they got that fixed something else happened, and the forward truck of the baggage car developed a hotbox.

The special had a clear track, but her speed was a crawl. The directors, despite their dollar-ante and the roof of the observation car for the limit, began to lose interest in their card game.

"What is this new toy we've bought?" one of them asked plaintively. "A funeral procession?"

Even H. Herrington Campbell began to show emotion. Regan was hot, both inside and out. He helped old Pete Chartrand and the train crew slosh buckets of water over the hotbox every time the Directors' Special stopped, which was frequently.

It wasn't Pete's fault. Nor anybody's fault. It was just hard luck, and it lasted through the whole blamed afternoon. By the time they pulled into Elk River, where Regan had wired for another car, and had transferred the baggage, the Directors' Special was as touchy as a man with gout. As they coupled on the new car, Regan spoke to the old engineer.

"We're two hours late, Dan. For the love of Mike, let her out and do something. That bunch back there's getting on my nerves."

Dan puckered his face in a reassuring smile under the peak of his greasy cap. "I guess we're all right now we've got rid of that car," he said. "You leave it to me, Regan."

Conductor Chartrand reached up with a new tissue to the cab window.

"Two hours and ten minutes late!" he snapped. "Nice, ain't it, for a Directors' Special?"

"Keep your shirt on, Pete," said Regan, "You're not to blame."

IT WASN'T the first time in railroading that schedules had gone glimmering. Only there was more to it than that. There were other trains—fast freights, passengers, locals, and work trains—whose movements were connected intimately.

Two hours and ten minutes could play havoc with a dispatcher's carefully planned meeting points over 100 miles of right-of-way. All afternoon Bob Donkin had been chewing his lips over his trainsheet back in the dispatcher's office at Big Coud, until the Directors' Special (officially Special 117) had become a nightmare.

Orders, counter orders, cancellations, and new orders had followed each other all afternoon—and now a new batch went out, as the rehabilitated Special left Elk River. Bob Donkin, with a sigh of relief at the prospect of clear sailing ahead, pushed the hair out of his eyes and relaxed a little.

It wasn't Donkin's fault; the day man at Mitre Peak *forgot*. That's all—but it's a hard word, the hardest there is in railroading. Heavy traffic was moving that afternoon, all trying to dodge Special 117. They were crowding each other pretty hard. And the day man at Mitre Peak forgot!

At dusk Pete Chartrand, from the Elk River platform, lifted a finger to the cab. MacCaffery, with a grim smile at the knowledge that the honor of the Hill Division—what was left of it as far as Special 117 was concerned—was up to him, opened out the 1608 to use the "rights" they'd given him afresh.

From Elk River to Mitre Peak, where the right-of-way crosses the Divide, is a fairly stiff climb. From Mitre Peak to Eagle Pass, at the canyon bed, it is an equally emphatic drop. The track in its gyrations around the base of the towering peaks is an endless succession of short tangents and shorter curves.

The Canadian Rockies had been harnessed but not tamed. Silent and brooding, they seem to be waiting warily to strike. There are many stretches where no more than a hundred yards will blot one train from the sight of another and where the thundering reverberations of the one, flung echoing back and forth from peak to peak, drown the sounds of the other.

West of Mitre Peak it is like this—and the operator at Mitre Peak had forgotten the holding order for Extra Freight No. 69!

The extra freight was running west in the same direction as the Directors' Special. But 69 was a heavy train and was feeling her way slowly down the grade, while the Directors' Special was hitting up the fastest clip that old Dan, who knew every inch of the road with his eyes shut, dared to give within the limits of safety and running orders.

On the right-of-way stood a gray rock wall with a short, right-angled dive of track around it. As the 1608's pilot rounded the curve, the old hogger's heart for an instant stopped beating. Three red lights leered before his eyes—the tail lights on the caboose of Extra No. 69—and his fireman, "Shorty Bill" Dawes, yelled: "My God, Dan, we're into her!"

DAN MacCAFFERY needed no telling that disaster was upon them. Even as he checked, checked hard, the thought of others was uppermost in his mind—the freight train crew, some of them in the caboose.

Shorty Dawes was beside him now, almost at his elbow, as nervy as the engineer he'd shovelled coal for these last five years. For the fraction of a second the two men looked into the other's eyes.

"Give the caboose boys a chance for their lives, Shorty, in case they ain't seen or heard us," Dan shouted in his fireman's ear. "Hold that whistle down."

Twenty yards, fifteen between them—the 1608 in the reverse bucking like a maddened bronco, and Dan working with all the craft he knew at his levers—ten yards—and then two men leaped from the caboose to the right-of-way.

"Jump!" shouted MacCaffery. There was nothing more he could do, and he followed his fireman through the gangway.

From the viewpoint of traffic, there ensued as nasty a mess as the Hill Division had ever faced. The rear of the freight went to matchwood. The 1608, the baggage car, and two Pullmans turned turtle, derailing the remaining cars behind.

Scared? Yes, badly. The directors, a shaken, white-lipped crowd, poured out of the observation car to the track side, followed by the stern-faced Mr. Campbell.

It was dark by then, but the wreckage caught fire and flung a yellow glow across the canyon and in a shadowy way lighted up the near surroundings. Train and engine crews of both trains hurried here and there, torches and lanterns spluttered, and hoarse shouts added their quota to a weird medley of escaping steam and crackling flame.

Regan, from a hasty consultation with Dan MacCaffery and Pete Chartrand, that sent the two men on the jump to carry out his orders, turned to face Mr. Campbell.

"Nobody hurt, sir, thank God!" puff-

ed the fat little master mechanic, in honest relief.

The general manager eyed the retreating forms of the engineer and conductor and said: "Oh, indeed! The whole affair is hardly worth mentioning, I take it—quite a common occurrence. You've got some rather old men handling your trains, haven't you?"

Regan's face went hard. "They're good men," he said shortly. "And there's no blame coming to them for this, Mr. Campbell, if that's what you mean."

The G.M.'s fingers clawed his vest pocket. "Why should I blame anyone? I'm looking for someone to congratulate—on the most pitiful example of near-railroading I've seen in years."

FOR a full minute Tommy Regan did not speak. He couldn't. And then came an explosion.

"By glory!" he roared. "We don't take that kind of talk out here, even from general managers. We don't have to! That's straight enough, ain't it? And you needn't hunt around for any greased words to fire me with. You can have my resignation right now, if you want it."

Mr. Campbell was gallingly preoccupied. "Are we stalled here for the rest of the night?" he asked irrelevantly.

Regan stared. "I've ordered them to run the forward end of the freight to Eagle Pass and take you down," he said, choking a little. "There's a couple of flats left whole that you can pile yourselves and your baggage on, and down there they'll make up a new train for you."

"Oh, very good," said the G.M.

Ten minutes later the Directors' Special had become a string of boxcars with two flats trailing the rear, on which sat the newly elected board of the Transcontinental, some on their baggage, and some with their legs hanging over the sides.

She pulled away from the wreck and headed down the grade for Eagle Pass. Funny, the transition from luxurious leather upholstery of the observation to an angry, chattering mob of magnates clinging to each others' necks as they jounced on the flooring of an old flat.

"I guess," said Regan to himself, as he watched them go, "I guess maybe I'll be looking for that job on the Northern Pacific after all."

Everybody talked about the Directors' Special run. And naturally, everybody wondered what would happen next. It was an open secret that Regan had handed the general manager a pill with no candy coating. The Hill Division looked to see him fired. But Regan did not go. In fact, nothing else happened for a while.

Carleton came back and got the facts from Regan. He did not mention his reply to Mr. Campbell's letter, in which he had stated that if they were looking for a new master mechanic there would be a division superintendency vacant at the same time.

The day man at Mitre Peak quit railroading without waiting for an investigation. Dan MacCaffery and Billy Dawes went back to their regular run with the 304. The division generally settled down again to its daily routine—and from the perspective of distance, grinned reminiscently at the run the brass collars had got for their money.

A week or so passed; pay day came and went. The day after that a general order from the East hit the Hill Division like a landslide.

Royal Carleton slit the innocent-looking official manila open with his paper knife, and chucked the envelope in the wastebasket. He read the communication, read it again with gathering brows, and sent for Regan.

The master mechanic read it slowly. Two hectic spots grew bright on his face. It was curt and cold, and said:

For the good of the service, safety, and operating efficiency, on and after the first of the month the services of employes over the age of sixty years will no longer be required.

Those were early days of railroading; not a word about pensions or half pay just sixty years—and *out*!

The paper crackled in Regan's clenched fist. There wasn't a sound in the office for a moment. Then he spoke, and his voice broke a little.

"It's a damned shame! That lousy skunk Campbell!"

"How many men does it affect?" asked Carleton.

"I don't know," the little master mechanic said bitterly, "but there's one it'll hit harder than all the rest—old Dan MacCaffery."

"I was thinking of Dan myself," the super said quietly.

"He hasn't a dime," Regan mourned. "Not a dime to fall back on. Think of it, him and his missus scrimping all these years to pay back what that damned kid stole from the bank. It ain't right, Carleton."

But someone had to break the bad news to the aging hogger, and Tommy Regan told him that very afternoon, the day after pay day.

DAN was on his way down to the roundhouse. He took out the regular passenger local that left Big Cloud at 6:55 every evening, and usually spent an hour ahead of running time with the 304. On this occasion he hunted up the plump little master mechanic in the latter's office just before the six o'clock whistle blew.

For an instant Regan thought the engineer had already heard the news, but a glance at Dan's face quickly dispelled that idea.

"Regan," said Dan, bursting with happy excitement, "I just had to drop in and tell you."

Regan got up out of his chair. "Sure, Dan, sure. What is it?"

"Well," said Dan, "you know that—that trouble the boy got into—"

"Yes, I know."

"Well, it's taken a long time—a good many years—but yesterday, you know, was pay day. And today the missus and me mailed off the last of that money, interest and all, the last cent of it, cleaned it all up! Say, Regan, ain't it fine? We can start now and save up for old age!"

Regan didn't say a word.

"Ain't you glad?" MacCaffery inquired with a puzzled look.

"I'll walk over a bit of the way to the roundhouse with you, Dan," said Regan gruffly. "Come on."

They stepped out of the shops and across a spur. Dan, still puzzled, strode alongside the master mechanic.

"What's the matter, Regan?" he asked reproachfully. "I thought—"

"I got to tell you, Dan," the M.M. blurted out. "But I don't need to say what I think of it. It's a damned shame! The new crowd running this road don't want anybody after the first of the month that's over sixty years of age. *You're—you're out!*"

Dan didn't seem to get it for a minute. Then his face whitened and his eyes glittered like a crazy man's.

"Regan," he pleaded, "there's two weeks yet to the end of the month. Don't tell my wife and don't let the boys tell her—for two weeks she don't need to worry. I'd like her to have them two weeks."

Regan nodded. "What'll you do, Dan, afterwards?"

The old hogger straightened up. "I dunno," he said, shaking his head. "We'll get along somehow." His eyes shifted to the roundhouse again. "I guess I'd better be getting over to the 304," and he turned abruptly away.

Regan watched him go, watched the overalled figure with a slight shoulder

stoop cross the turntable and disappear inside the roundhouse doors. Then he walked slowly across the tracks and uptown toward his boarding house.

"Don't tell her"—the words kept ringing in his ears—"and don't let the boys tell her."

Nor did they. The division and Big Cloud kept the secret for those two weeks—and they kept it for long after that. The little old lady never knew.

But everybody else knew. They watched Dan as the days went by, watched with a tight feeling in their throats, and kept aloof a little, because they didn't know what to say.

Dan would come down to the roundhouse in the late afternoon an hour before train time, as he always did. He'd putter and oil around and coddle the 304 for an hour, just as though he was always going to do it. Then he'd take his train out, return on the early morning run, back the 304 into the roundhouse, and trudge up to his home on Main Steet.

SOON, too soon, came the night of the 31st. It was fall, and dusk fell early. By a little after six, with the oil lamps lighted, the engines back on the pits were beginning to loom up through the murk in grotesque, shadowy shapes.

Regan, crossing the turntable, paused for a moment hesitantly. He was a little early for his nightly game of pedro with Carleton. It wasn't much more than half past six, so he wandered aimlessly around the yards, dreading to see MacCaffrey, and then went to the super's office.

The pudgy little master mechanic didn't play much of a game of pedro that night. His heart wasn't in it. Carleton had barely dealt the first hand when they heard the 304 backing down and coupling on the local. Regan got up from his chair, walked to the window, and stood there watching until the train pulled out. Carleton said nothing, just dealt the cards again, as Regan resumed his seat.

An hour passed. Regan, fidgety and nervous, played in a desultory fashion. Carleton, disturbed, patiently corrected the master mechanic's mistakes. The game was a farce.

"What's the matter?" he asked as Regan made a misdeal twice in succession.

"Nothing. Let's play some more. It's your bid."

Carleton shook his head. "You're taking it too much to heart, Tommy. It won't do you any good—either you or Dan. He'll pull out of it somehow."

Regan, with a sweep of his hand, shot his cards into the center of the table. "It's no good," he said gruffly, getting up. "I can't play tonight."

He stopped suddenly and turned his head, as a chair scraped sharply in the dispatcher's room next door. A step sounded in the hall. The super's door was flung open and Spence put in his head. One glance at the dispatcher, and Carleton was on his feet.

"What's the matter, Spence?"

"The local," said Spence. "Number Forty-seven. *Dan MacCaffery's dead!*"

Carleton and the master mechanic gaped in amazement, and the dispatcher continued talking.

"There was engine trouble near Big Eddy in the Beaver Canyon. Somehow MacCaffery stopped just in time to keep the train from going over the bridge embankment—and went out doing it! No one else was hurt. Dawes, the fireman, and Conductor Neale walked back to Big Eddy. I've got them on the wire now. Come into the other room."

Regan stepped to the door mechanically. He and the superintendent followed Spence into the dispatcher's room. There Carleton, tight-lipped, leaned against the table. Regan, his face like stone, took his place at Spence's elbow as the dispatcher dropped into his chair.

There wasn't a sound for a moment save the clicking of the sender in a quick tattoo under Spence's fingers. Then Spence picked up a pencil and began scribbling the message on a pad, as the sounder spoke—Shorty Dawes was dictating his story to the Big Eddy operator.

"It was west of Big Eddy, just before you get to the curve at the approach to the Beaver Bridge," came Dawes' story. "We were hitting up a fast clip when a jolt in the cab spilled me into the coal and knocked Dan off his seat. It all came so quick there wasn't time to think, but I knew we'd shed a driver on Dan's side, and the rod was cutting the side of the cab. I heard Dan shout something about the train going over the embankment and into the river if we ever hit the Beaver curve, and then he jumped for the throttle and the air. There wasn't a chance in a million for him, but it was the only chance for the rest of us. Dan made it somehow, I don't know how; it's all a blur to me. He checked her, and then the rod caught him, and—"

The sounder broke for a few seconds and then concluded:

"We stopped just as the 304 turned turtle. None of the coaches left the rails. That's all."

For a brief period the three men sat in stunned silence. Then as Carleton and Regan left the dispatcher's room, the master mechanic said solemnly: "You know, I think Dan MacCaffery really wanted to die that way."

In answer to a startled, inquiring look, Regan explained: "At his age, Dan was no longer able to support his wife. The only money he could give her now was what she'd get in death benefits from the three fraternal orders he belonged to. If I didn't know him better, I'd think the old boy deliberately planned that accident to beat the age limit."

Without another word, they trudged along Railroad Avenue together in the chilly autumn darkness, passed here and there an oilburning lamp-post, and turned in at their boarding house. Both men were wondering how long the new management of the Transcontinental Railroad would last. •

William E. Warden, Jr., 1216 Shamrock Lane, Waynesboro, Va. 22980

Pennsy designed its G-5 class 4-6-0's for rapid acceleration on suburban runs. March, 1953: this one is pulling a Long Island train out of Carle Place, N.Y.

Civil engineer Goldie Hurvitz works for Israel Railways, designing bridges and other structures and supervising construction and checking on maintenance.

PERSONALITIES. Lucius Beebe, who died Feb. 4th, left the bulk of his estate, estimated at $2 million, including royalties from many railroad books, to his longtime friend "Chuck" Clegg, who collaborated on some of those books. Beebe's will also set up a trust fund for T-Bone Towser, a huge St. Bernard to which he was devoted, so that the dog would be "maintained in comfort for the rest of his natural life." T-Bone is well cared for by Chuck, who is very fond of him, but shows signs of missing his vanished 6 foot 4 master. The last Beebe-Clegg book, Vol. II of *The Trains We Rode*, was nearly completed when Beebe passed away and will be published soon.

"The other day at Monroe, Va., I saw Southern train No. 37, the *Crescent Limited*, roll in proudly from Washington," writes H. G. Cunningham, 923 Circle Drive, S.E., Vienna, Va. 22180. "The engineer, Frank Purvis, makes a practice of sounding his horn loudly as he passes Shipman, Va., saying hello to his mother who lives on a farm near the track. Mrs. Purvis answers her son's greeting by a flash of electric lights in the house his great-grandfather built long ago."

Living in another old farmhouse is Mrs. Lucina E. Hardy, a widowed nurse, at Rte. 2, Box 59, Cleveland, Tenn., who tells us: "My father was Howard Welch, a CNO&TP engineer who died in a wreck in 1911. This 226-acre farm was bought from his wages in 1886. General Sherman marched his army over this land en route to Georgia more than 100 years ago. My brother Clarence is a retired Cotton Belt conductor; his son is an engineer on the same road. I am an active member of the East Tennessee Railroad Museum, Inc., and go on fantrips whenever I can."

A leading food plant executive, Gerald G. Hutton, succeeds Dick Cartwright as president of the 15-mile steam-powered Arcade & Attica in upstate New York. Dick's resignation ended his 54-year rail career. "He had a big impact on the railroad industry," said Carroll P. Burke, head of the American Short Line Railroad Association, speaking at a testimonial dinner.

Bill Knapke, retired SP conductor, collaborated with Gilbert A. Lathrop, retired Rio Grande and Western Pacific veteran, in writing an article on "Railroading Below Sea Level" for our next issue. Bill will be 97 on July 17th. Readers wishing to send birthday greetings to the Grand Old Man of Railroading may address him at 3831 East Flower Ave., Tucson, Arizona 85716. Other August *Railroad* features will include "Gen. Robert E. Lee Also Was a Railroad President," a little-known bit of history, by William E. Warden, Jr., and a long, alltime, steam roster of the Intercolonial Ry., now part of Canadian National.

From Hans Kohut, one of our overseas subscribers, comes information on Miss Zahava (Goldie) Hurvitz, who works for the Engineering Department of Israel Railways, P.O. Box 44, Haifa, Israel. This talented brunette with light brown eyes is among the very few girls who have received a degree in civil engineering from the Israel Institute of Technologies. Goldie graduated in 1957. Her job is planning structural work such as bridges, culverts, underpasses, and overpasses, supervising their construction, and inspecting their maintenance. She often rides a little maintenance railcar. While on a vacation in Europe some time ago her chief interest was examining and photographing railway structures. Her hobbies embrace classical music, modern painting, and collecting small rocks of geological strata. She speaks four languages, including English.

A Union Pacific engineman told us that one day while he was riding the engine cab on the *City of Los Angeles* he looked at the speed recorder and saw they were making more than 120 miles per hour. We questioned William R. Moore, UP general director of public relations, who says: "To the best of my knowledge, no railroad in the United States operates that fast. Our locomotive speed recorders are checked daily, and such speed would violate safety rules."

The 3 millionth rider on the Reading Railroad this year was Miss Theda DeMott, a free-lance writer, 512 Welsh Rd., Bethayres, Pa. Two or three times a week Theda boards the train at Bethayres and rides to Reading Terminal. Recently she was going to Philadelphia for an annual meeting of the Society of Friends. At the Terminal train gate a countdown was going on and railroad officials stood waiting.

"Five, four, three, two, one! You're it," Theda was told. "You are the 3 millionth rider of 1966, as determined by our IBM computer!"

The surprised girl was given a TV set, a radio, and tickets for 12 dinners.

Edward Winslow, for 40 years station agent of the New Haven Railroad at Myricks Crossing, Mass., who died last February, left an estate of more than $5 million, mostly to his widow. "No, he didn't save that much money from his salary," the widow said. "He made some smart investments."

Switch List

THESE items are published free and in good faith, without guarantee. Keep within 28 words, including name and address. Do not omit St., Ave., etc., in your address. Use abbreviation such as *tts.* (timetables); *emp. tts.* (employes timetables), and *SSE* (send 5¢ stamped envelope for list or details).

A tight printing schedule compels us to close the *Switch List* long before publication date. As this magazine hits the newsstands our Aug. department is closed. September entries should reach us before June 6th. Address Sy Reich, *Railroad Magazine*, 205 East 42nd Street, New York, N.Y. 10017.

JOHN ADCOCK (age 72), last heard from working for UP in '53 at Tacoma, Wash., contact your cousin Clyde R. Hull, Box 171, Stuart, Okla.

BERNARD ALBERT, 3535 Rochambeau Ave., New York, N.Y. 10467, wants slides of BTC trolley el.

GENE ANDERSON, 208 E. 83rd St., New York, N.Y. 10028, will buy 35mm color slide or 8x10 pic of PRR tug Chicago.

C.T. ANDREWS, 4231 S.W. 38th St., West Hollywood, Fla. 33023, sells 4x5 and p.c. size pix LV, RDG, CNJ, DL&W, L&NE, L&H, PRR, and Pa. shortlines, locos and stations.

D.W. ANTONOPOULOS, 122 E. Main St., Middletown, Md. 21769, trades 35mm pix, negs., NYC, NYNH&H, B&M diesels for those of other rrs.

ROGER ARCARA (railbook author), 2405 Marion Ave., New York, N.Y., reconditioned size 116, 616, 122 cameras; list free.

LARRY AUSTIN, 808 Aetna Dr., Ellwood City, Pa. 16117, sells b&w 35mm slides trolleys, subways, commuter elecs. (SSE)

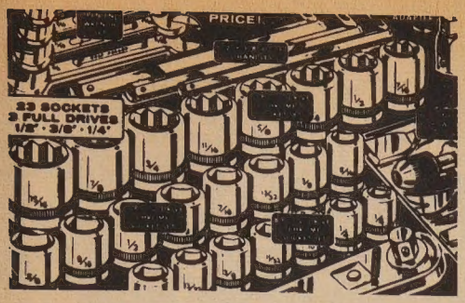
LEN BEARD, 7613 Deep Spring Rd., Wonder Lake, Ill. 60097, sells oilburning station, caboose, bunkhouse, and switchmen's lamps, lenses, parts. (SSE)

STEVE BELITSKY, 48 Simmons Ave., Brocton, Mass. 02401, will sell 10/43, 11/44 issues Mdl. Bldr. or trade for old issues of Railroad Magazine.

HARRY BENNETT, JR., 1804 N. Mount St., Baltimore, Md. 21217, wants pix and slides of CTA cars 1-4, 25-26, 29-30, 51-54.

men's mart

Products shown may be obtained directly from indicated sources. Send check or m.o. Mfr. will refund purchase price on prompt return of unused, non-personalized lines. This department not composed of paid advertising.



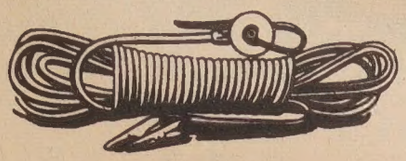
106 PIECE SOCKET WRENCH & TOOL SET. For use in home, shop, on farm, and for boat and auto repairs. Hardwearing, rust resistant, precision-engineered. $11.95, plus $1.50 postage and handling. Jay Norris Co., Dept. T-106, 183 Essex St., Boston, Mass. 02111.

American
COIN BOOK
LISTS EVERY U. S. COIN MINTED HOW MANY what they are worth WHERE TO SELL !!!
RETAIL PREMIUM LIST of ALL UNITED STATES COINS

CHECK YOUR CHANGE. Let experts help you find pennies worth more than dollars! Coins don't have to be old to be valuable. Send $1. American Standard Coin Book illustrates and lists worth of all valuable US coins. Oak Indus., 1830 A, N.E. 163rd St., No. Miami Beach, Fla. 33160.

SAVE $$$ ON NEW 1966 CARS! Factory guaranteed. Full price: Corvette convert. $3655, Pontiac Grand Prix $3070, Mustang HT $2232, Olds Toronado $4018. Fully factory equipped. Values on all Amer. & for. cars. Delivery anywhere USA. 1966 Catalog, $2. Tauber Assoc. Nat'l Purchasing Agents, Dept. A-106, 183, Essex St., Boston, Mass. 02111.

LEARN ADVERTISING. Easy home-study plan prepares you for profitable career. No writing or art ability needed. Executives guide you, tell you what to do. Free Career Kit includes advertising book, sample lesson, job opportunities chart, home business details. No. American School Advertising, University Plaza, Dept. AMG 8, Newport, Calif. 92660.



NEW TV ATTACHMENT for those who are hard of hearing. If nerve deafness has put you into one dimension of TV entertainment — that of sight only — try this handy attachment. Easy to use; easy to attach; no serviceman needed. $1.00 ppd. Acousticon Hearing Center, Dept. E-AMC-7 23 W. 47th St., New York, N.Y. 10036.

EXPERTS have been FOOLED by the Genuine Appearance

SENSATIONAL OFFER!

SIMULATED STAR SAPPHIRE

(APPROX. 4 KARAT SIZE)

Ablaze with life and light. The color and star of the genuine star sapphire captured by amazing new process. Genuine STERLING SILVER mounting in elegant Florentine finish. Two simulated side diamonds. Sizes available from 6 to 9. Guaranteed—your money back in 10 days if not satisfied.

Only $5.75 ppd.

Send your ring size together with check or money order to:

PREMIUM BUYERS CLUB, INC.
P.O. Box 15020, PHILADELPHIA, PA. 19130

FREE 72 ROUNDS OF BLANK CARTRIDGES

ITALIAN **SNUB NOSE** AUTOMATIC **$4.98**

Postpaid Send cash, check or M.O. No COD's please.

Identical duplicate in styling of automatic detective revolver. Fires 12—4.5 cal. blank cartridges in 10 seconds. Not a CO_2 or Pellet gun.

FREE—72 rounds of blank cartridges included. Perfect for sports, stage, etc. Illustrated gift carton.

Request FREE Catalog

FEDERAL 6652 N. Western/Chicago, Ill. 60645 Dept. GVE

NEW AUTHENTIC BRITISH

BLACK BERETS

- Made for rugged conditions
- But very attractive for dress
- All wool, and lined inside
- Half inch leather rim edge
- Type worn by British armed forces and U.S. Special Forces
- Colors: Black, dark Green, and Maroon
- Sizes: 6¾ to 7⅝. $5.95 ppd. no C.O.D.'s
- Money back guarantee—check or money order

Perfect for Hunting Driving • Camping

ALGON Co. Dept. A67, Box 440, N.Y.C., N.Y. 10451

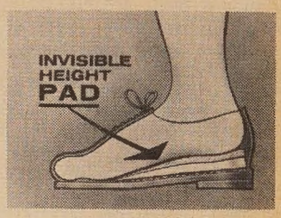
DINGY TEETH *made* RADIANT WHITE

Like a movie-star smile in 3 minutes with wonderful new cosmetic enamel!

Are you smile shy because of discolored, dull and unattractive teeth? Then try **WYTEN** a marvelous new "Dental Cosmetic" for an attractive new glamorous look. Just brush on and in seconds you transform discolored, yellow and dingy teeth into a sparkling white finish that appears so pearl-like and natural. **WYTEN** is used by thousands of smart women and theatrical folks to cover up stains, blemishes and even gold fillings. Dental formula is completely safe and harmless for natural as well as false teeth. **SEND NO MONEY.** Just send name and address. Pay postman on delivery $1.98 plus postage for a 3-4 months supply. Or send only $1.98 with order and we pay postage. **MONEY BACK GUARANTEED** if not completely delighted.

NU-FIND PRODUCTS CO., Dept. 799 P. O. Box 205 Church St. Station, N.Y.C. 8, N.Y.

BE Taller By 2 FULL INCHES



Slip these foam rubber and felt Height Increase Pads in any pair of shoes. Now step into them to added walking comfort and 2" in height. **The same height increase as expensive height increasing shoes.** These invisible interchangeable cushions need no gluing and are an aid to better posture. Durable and shock absorbing. Thousands now worn. **State man's or woman's shoe size.** Only $2.95 pair ppd.

HUDSON INDUSTRIES, Dept. AMG-8, 550 Fifth Ave., New York 36, N.Y.

OPPORTUNITIES FOR YOU

For ad rates, write PCD
1085 Walnut
Des Plaines, Illinois

HELP WANTED *(MB- Aug.-Sept.'66)*

FOREIGN EMPLOYMENT: South America, Africa, Europe, Australia, USA. Earnings to $2,000.00 monthly. Construction, all trades, professions, occupations. Many companies pay fare, housing, benefits, bonuses. Write: Universal, Dept. B-11, Woodbridge, Connecticut 06525.

EMPLOYMENT INFORMATION

FOREIGN EMPLOYMENT. CONSTRUCTION, other work projects. Good paying overseas jobs with extras, travel expenses. Write only: Manager, Foreign Service Bureau, Bradenton Beach, Florida.

SALESMEN WANTED

EARN BIG WEEKLY Commissions soliciting delinquent accounts. No collecting or investment required. Metropolitan, 1129 West 41st, Kansas City, Mo.

LOANS BY MAIL

GET $800 CASH now—pay back $37.66 per month—includes all charges—Send name, address, age to Murdock, Dept. 376, Box 659, Poplar Bluff, Mo.

INVENTIONS

INVENTIONS NEEDED IMMEDIATELY for manufacturers. For additional information write Kessler Corporation, C-138, Fremont, Ohio.

MISCELLANEOUS

MEN ONLY!—SURPRISE Package $1.00. Enterprises, Box 266-PMB, Spring Valley, New York 10977.

PERSONAL

DIVORCE-LEGAL MEXICAN, complete details $2.00 (refundable). Raymond Cruz, Box 9175, El Paso, Texas.

HYPNOTISM

HYPNOTISM REVEALED! FREE Illustrated Details. Powers, 8721 Sunset, Hollywood, California 90069.

BOOKS

FIVE SAMPLE BOOKS plus complete Exciting Listing only $1.00. Box 296, Snowdon, Montreal, Canada.

TOM BROWN, 5912 Fern St., El Ferrito, Calif., trades SP, ATSF, WP emp. tts. for those of Eastern and southern rrs., esp. N&W.

R.C. CAESAR, 638 Fulton St. E., Grand Rapids, Mich., sells Midwest rr. pix. (SSE)

PAUL CARLETON, 158 Dorsetta St., River Vale, N.J. 07675, will buy 8mm Blackhawk color movies of UP 4-8-4 No. 844 and WP 4-6-0 No. 94. (Blackhawk no longer carries those old movies.)

K.F. CHIVERS, 67 Somerset St. W., Ottawa 4, Ont., Canada, wants Canadian annual rr. passes.

FRED CLARK, 73625 Santa Rosaway, Palm Desert, Calif. 92260, wants colored interurban postcards. Ray Currier, please write.

Mr. COTT, Carrick, Otranto Pl., Dunleary County, Dublin, Ireland, sells Baldwin's "Records of Recent Construction" (not facsimiles of them).

STAN CREWS, Rte. 7, Box 797, Pensacola, Fla. 32506, sells RPO postmarks, trolley books, various rr. mags., tickets, pix. (SSE) Specify wants.

BILL CURRY, 1613 Valley Ave., Puyallup, Wash. 98371, sells MILW pix, train lists, orders, info. (SSE)

GEOFFREY DAWSON, 1207 Ashleman St., Waco, Tex. 76705, sells back numbers of Railroad Magazine, Trains, mdl. rr. mags., tts., other railroadiana. (SSE)

RAY DESCHENES, 903 Mohawk Rd. E., Hamilton, Ont., Canada, sells 3½x5 to 11x14 steam pix CN, CP. List 20¢. Buys, sells, CN, CP, TH&B steam negs.

KEN DETAMORE, Box 432, Converse, Ind. 46919, will sell 200 size 616 steam negs. (SSE)

TOM DORSEY, 5437 Remmell Ave., Baltimore, Md. 21206, buys or trades for trolley slides, U.S., Canada, Mexico.

CHUCK DOUBROUGH, 43 Luscombe St., Hamilton, Ont., Canada, buys or trades GT railroadiana.

LARRY EASTWOOD, 2560 Fetters Mill Dr., Bryn Athyn, Pa. 19009, wants RDC negs., pre-'60 RDG tts.

CHAS. GALLUS, 102 Old Dublin Pike, Doylestown, Pa. 18901, buys amateur rr. tape recordings.

ED GARDNER, 22 Garden Ave., Mountain Top, Pa. 18707, buys or trades tts., emp. tts. of shortlines, trolleys in N.Y. and Pa., and predecessors of D&H, Pennsy, NYC.

BRYAN GRIEBENOW, 11320 Bayla St., Norwalk, Calif., wants negs. of Ore. and Wash. shortline or logging rr. diesels, esp. Port Traction, LP&N, YVT.

KARL HENKELS, 1628 N. Oakley Ave., Chicago, Ill. 60647, trades or sells on approval orig. 35mm Kodachrome diesel slides of his area. No list.

WM. HOFFMAN II, 326 S. East Ave., Baltimore, Md. 21224, will sell '38 map Baltimore trolleys. (SSE)

C.E. HULL, 203 E. 16th St., North Little Rock, Ark., sells and trades back issues Railroad Magazine (SSE)

RICH HUTCHINGS, 20435 Steel Ave., Detroit, Mich. 48235, sells GTW steam and diesel pix, sizes 4x5 to 24x28.

DAVE JOHNSTON, 2358 Alva Ave., El Cerrito, Calif., buys emp. tts., tts., and other railroadiana of Western elec. rrs.

HERB JORDAN, Box 360, Rte. 1, Mfddletown, Ind. 47356, will sell Loco. Cyclopedia '22, switch keys, rulebooks.

STEVE KING, 112 Maplewood Ave., Maplewood, N.J. 07040, wants DL&W steam pix, data, rosters, plans.

DAN KIRCHNER, 7740 Littlefield, Dearborn, Mich., buys orig. slides of steam on approval.

ART KNOWLES, c/o Railroad Magazine, 205 E. 42nd St., New York, N.Y. 10017, personally wants pix NYC 4-8-4 6003 for a friend.

CASE KOWAL, 6615 S. Bell Ave., Chicago, Ill. 60636, will sell 50-ft. 8mm movie CNS&M from 1923.

PAUL KUTTA, Shadyside Ave., South Nyack, N.Y., wants Dela. & Nthn. and Dela. & Eastn. pix, tkts., tts., info.

JIM LANIGAN, 4820 8th Ave., Regina, Sask., Canada, will buy pix of CP 4-8-4 3101 and 0-6-0 6166 in service.

WOODROW LAWYER, 547 Broadway, Hanover, Pa. 17331, buys any size pix and negs. WM steam.

TOM LEAR, 1670 Evergreen Pk., Coshocton, Ohio, trades back issues Railroad Magazine, RMC, Mdl. RRer, Trains. (SSE)

PAUL LEISTER, 217 S. 2nd St., Sunbury, Pa. 17801, trades rr. postcards.

BILL LINDBLOM, 2109 Enoch Ave., Zion, Ill. 60099, buys or trades for rr. kerosene hand lanterns.

BILL LINLEY, 1325 Morley Blvd., Ottawa 5, Ont., Canada, wants to hear from Tonawanda, N.Y., fan seeking pix CN 6235.

CARL LUCAS, 4370 Mozart Ave., Dayton, O. 45424, wants Chicago area emp. tts. of IHB, C&NW, CB&Q, ATSF. (SSE)

RAY MAGEE, Box 744, Dequincy, La. 70633, wants switch keys, bldrs. plates, lanterns, uniform buttons, PRR keystone, passes, tkt. validator, GN headlite.

R.C. MARGARIT, Apartado 210, Igualada, Spain, wants emp. tts. of U.S. and Canadian rrs. (He writes good English as well as Spanish.)

ED MEAD, 1158 5th Ave., New York, N.Y. 10029, wants pix, anecdotes, info. on Woodstock Ry. and other Vt. shortlines. (Freeman Hubbard's book, "Railroad Avenue," has complete illustrated history of Woodstock Ry., its last run, etc.)

K.W. MOORE, 111 Galahad St., Borger, Texas 79007, sells or trades tts., emp. tts., back issues of various rr. mags. List (SSE)

JEFF MORA, 310 E. 70th St., New York, N.Y. 10021, wants roster PRR commuter equipment.

STEVE MUMLEY, Box 63, Alburg, Vt. 05440, wants pix of Rutland.

JOHN MUSSEN, 40 Hawkins Ave., Hamburg, N.Y. 14075, wants (buy or trade) slides of certain Erie frt. Alco locos, also LV and B&M frts., or what have you. (SSE)

DAVE NESTLE, Ray Rd., Greenwich, N.Y., sells wide variety of railroadiana. Complete list 10¢. Specify wants.

DICK PAIGE, 715 Meridian St. Ext., Groton, Conn. 06340, wants to know where he can get books of rr. poems.

AL PARSONS, 3237 Voigt Dr., Indianapolis, Ind. 46224, wants book by Ashley, "The Stolen Train."

G.G. PARSONS, 8416 Conover Pl., Alexandria, Va. 22308, sells Kodachrome dupl. 35mm slides steam, diesel, trolley. Sample 25¢.

KIRK PASCHE, 259 W. Territorial Rd., Battle Creek, Mich., sells train orders and switch lists from GTW, Battle Creek to Chicago.

PAUL PIETRAK, Box 76, North Boston, N.Y. 14110, publishes and sells 2-sheet letter "Key Lock & Lantern," $1 per yr.

JOHN ROBERTSON, 808 E. Monroe St., Mexico, Mo. 65265, buys, trades, or sells pix and negs. of WAB and Chi. & Alton steam. Wants info. on Francis, Mo., term of C&A.

DENNIS SCHMIDT, 817½ Wilt St., Fort Wayne, Ind. 46804, sells 3½x5 diesel pix. List 5¢.

JOHN SCOTT, 3716 Rosebrook Court, Concord, Calif. 94520, will sell 12" bronze loco bell and Adlake kerosene marker lamps.

JOE SCHUSSMAN, Highland Ave., Stanhope, N.J. 07874, wants items of NY & Greenwood Lake, Caldwell RR., Watchung Ry., Rockaway Valley RR., Morristown & Erie. Has items to swap and DL&W emp. tts. to sell.

JOHN STROCK, 240 S. 13th St., Philadelphia, Pa. 19107, wants 3 books: Bogen's "Anthracite RRS.," Jones' "Anthracite Coal Combination in the U.S.," Campbell's "Reorganization of Amer. RR System, '93-1900."

E.L. TOMBERLIN, 68 Oakes Blvd., San Leandro, Calif. 94577, seeks pre-PCC pix in Twin Cities area and steam negs. North & South Ry. and Darjeeling-Himalayan Ry.

LES TUTTLE, Box 191, Rural Hall, N.C., wants pix and postcards of park trains.

R.P. WEATHERBURN, 9019 133 Ave., Edmonton, Alta., Canada, wants Off. Guides, Equip. Registers, emp. tts., emp. mags., and 8x10 steam pix.

COLWYN G. BEYNON, 74 West 27th St., Hamilton, Ont., Canada, collects rr lanterns, switch keys, etc. from northern railways and would like to hear from anyone interested in such.

BRUCE DAVISON, Box 472, Henniker, N.H. 03242, wants New England railroadiana (SSE)

EDWIN F. GREEN, 115 S. Macdonald St., Mesa, Ariz. 85201 wants Iowa Central RR pub tts. Will sell "Mile Posts of the Prairie" (M&StL history).

BOB GREENAWALT, 3543 N. Rosemead, Rosemead, Calif. 91770, still seeks defunct RR stocks and bonds, any road. Who has a Nevada Copper Belt RR bond? Also want Poor/Moody Manuals.

E.W. HEISS, 2531 E. Cherokee, Springfield, Mo. 65801, sells FRISCO dining car table covers with emblem, 36x36 $1.75, 37x57 $2.75, SSE for other rr items.

A.R. IBARGUEN, W. Farmington, Me. 04992, wants pix Pennsy 2-8-0 9915, ACL 4-6-2 1523, 494.

BRIN JACK, 2650 Cardinal Lane, San Jose, Calif. 95125, sells booklet "Display of Locomotives & Rolling Stock" issued by New Zealand Railways, New Zealand tts.

BOB and LOU JONES, 131 Kendall Way, Covina, Calif. 91722, trade lanterns, locks, and keys.

ARNOLD JOSEPH, 2512 Tratman Ave., Bronx, N.Y. 10461 sells back issues of Railroad Magazine, Trains, R&LHS Bulls, Mdl RRer, RRMC. Buys collections of same in good cond.

JAMES E. LANIGAN, 4820 8th Ave., Regina, Sask., Canada, buys CPR 1905, 1910, 1945 steam loco diagram books and revisions, also pix of early CPR steam locos. Send description and price.

FRED LOONES, 904 Walnut St., Western Springs, Ill. 60558 sells cap badges, tts, emp tts, menus. List 10¢.

S.R. McCARTHY, 425 Boonville St., Springfield, Mo. 65601, sells 8mm, 35mm movies, tts and other railroadiana. (SSE)

BOB McVAY, Box 625, King City, Calif. 93930, will sell Interurban Special #10 for 25¢. Buys, sells or trades other Interurbans, Railroad Magazine, Trains, CERA, ERA. (SSE)

WILLIAM MOLL, 4009½ Lanark Lane, Houston, Tex. 77025, wants original color slides of Chicago streetcars, IT and other elecs.

FRANK MOORE, 760 Catawba Rd., Charleston, S.C. 29401, wants color slides, info. on ACL, SAL, SOU, C&WC, CG, S&A, AB&C, P&N, D&S steam and diesels.

WARREN NORCROSS, 5411 Whitby Ave., Philadelphia, Pa. 19143 wants Pennsy loco slides.

AL SHARP, 100 Shennecossett Pkwy, Groton, Conn. 06340, sells Railroad Magazine '30-'64; Ry Age '33, '38, '39; Official Guide '60-'65; Pathfinder NE Ry Guides '20, '25.

DWIGHT SHELBY, 138 N. 33rd St., Camp Hill, Pa. 17011, sells rr books. (SSE)

JOHN THOMPSON, Stanstead College, Stanstead, Que., Canada offering CPR brass number plate 3610 and glass NPs 1227, 1228. (SSE)

TED THOMPSON Jr., 2006 Blaine St., Williamsport, Pa. 17701, sells emp tts, pub. tts, train orders, train order blanks. (SSE) Give specific wants: road, item, etc. Good deals.

CECIL WILKINSON, 14522 State St., Riverdale, Ill. 60627, wants any size pix EJ&E 0-8-0 No. 82.

D. WILSON, 26 Greystone Cr., Brampton, Ont. Canada, will buy 8mm movies of CP '60 triple-header to Orangeville.

OSCAR YAECHE, 2924 S. 46th St., Milwaukee, Wis. 53219 sells 7x9" U.S. and foreign wreck pix, steam, diesel and elec.

Model Trading Post

J.H. BURKEL, 133 Lehigh Ave., Blackwood, N.J. 08012 sells AF trains, accessories, list 10¢.

PATSY CARAFENO, 199 Laurel St., East Haven, Conn. 06512 sells steam locos 2½", 3½", 5", 7½", 10" and 12" gage. All models on display at above address.

FRANK CHIAPPETTA, 209 N. 24th St., Kenilworth, N.J. 07033, sells or trades Lionel 027 and Athearn HO gage cars. (SSE)

R.H. FARSON, Valley Rd., Somerville, N.J. 08876, will sell 12"-gage live-steam loco in good running cond., also 1000 feet of track, ties, cars, switches. (SSE)

GEO. LARNED, Box 263, Bedford Hills, N.Y. 10507, wants Lionel Blue Comet, good cond.

AL POMMER, 898 Hyde Park Ave., Hyde Park, Maine 02136, will buy Stube Wuppertal Monorail set or other European prototype HO.

AL STAUFER, Rte. 4, Medina, Ohio 44256, will buy std-gage, presidents' special, and No. 9 or send in trade 381 or Blue Comet or original NYC and PRR steam negs.

LES TUTTLE, Box 191, Rural Hall, N.C., will sell 17"-gage, gas-powered train and 200 feet of track.

BOB WESTON, 618 N. California St., Mundelein, Ill. 60060, wants AF trains and accessories of 1940-50. ●

Pen Pals Wanted

Ellis Acker, Jr., 615 Gadsden Rd., Anniston, Ala. 36201, likes to hear from steam fans.

Patty Ann Robrecht, 515 Howard St., Green Bay, Wisconsin.

Diane Sloan (age 16), Rte. 1, Box 54, Thayer, Missouri.

Jennis Thornton (age 17), Box 298, Mammoth Springs, Arkansas.

Marie Strickland (age 14), 1245 Chatterton Rd., Muskegon, Mich.

Herbert H. Harrington, Jr. (age 19), 404 Asbury Lane, Niles, Ohio.

Nancy Nathan, P.O. Box 1305, Asheville, North Carolina.

Maxine Haas, (age 16), 1424 Chatterton Rd., Muskegon, Mich.

L. P. Narde (age 39), General Delivery, Tucson, Arizona.

Nancy Young (age 16), Rte. 1, Buffalo, West Virginia.

Donnie Lee Dallance (age 17), P.O. Box 32, Kenly, N.C.

Beverly Warner (age 16), Red House, West Virginia.

Christine Fabsik (age 14), 2702 S. Kiminsky St., Chicago, Illinois.

H. Malan Scott (age 20), 101 E. Mill St., Osawatomie, Kansas.

Gilbert Fannin (age 19) and brother, Jim (17), Hickory Street, Milford, Illinois.

Richard Holder (age 18), 202 12th Street, Levelland, Texas.

A. Berton (age 37), 6709 Chateaubriand Ave., Montreal, Que., Canada.

Paulette Hyne (age 17), Box 264, Mandan, North Dakota.

Miss Terry Maziarz (age 17), 1187 Broadway Street, Buffalo, N.Y.

Dianna May (age 15), P.O. Box 323, Chesapeake, West Virginia.

Vickie Van Gorder (age 16), R.D. 3, Montrose, Pa.

Miss Billie Jo Chance (age 14), 7426 Jay Street, Houston, Texas.

Beverly Hoffmeyer (age 16), and sister Vicki (age 13), 4636 E. Laketon Street, Muskegon, Mich.

Cathy Carlson (age 16), 1046 Arundel Street, St. Paul, Minnesota.

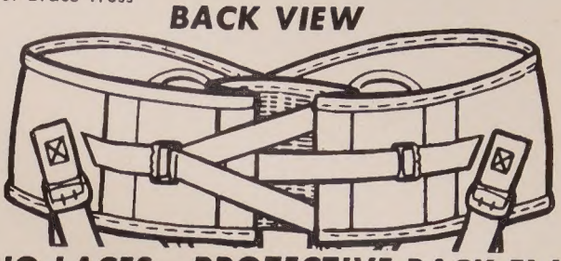
Mike Little, SN 7938011, USS Ranger (CVA-61), S-2 Division, FPO, San Francisco, Calif.

NEW . . . Improved . . . Patented . . .

RUPTURE-EASER

T.M. Reg. U.S. Pat. Off. A Piper Brace Truss

With instant pull-strap back adjustment



NO LACES PROTECTIVE BACK FLAP

For Men! For Women! For Children!

Pat. No.: 3,097,641

Right or Left side . . . $4.95

Double $6.95

Enclose 25¢ Postage

Read what others say about famous RUPTURE-EASER comfort:

R. C. of Corvallis, Oregon, Air Mails: "Send me another Rupture-Easer so I will have one to change off with. It is enabling me to work at top speed at my press machine 8 hrs. a day."

M.S. of Anderson, Ind., thanks us and says: "It is one of the finest things I have ever worn and has made my life worth living. It has given me untold ease and comfort."

L. C. H., Blackburn, Mo., writes: "The Rupture-Easer I bought from you has done so much good I couldn't forget you this Christmas season."

Now You Can Enjoy the Same Basic Comfort and Relief—Plus Easier Adjustment and Even Better Fit!

NO FITTING REQUIRED!

A MOST EFFECTIVE SUPPORT FOR REDUCIBLE INGUINAL HERNIA

Rupture-Easer is a highly effective support. Hundreds of thousands of hernia sufferers have discovered wonderful relief, comfort and protection in Rupture-Easer. Rupture-Easer is easy to wear.

RUPTURE-EASER IS SANITARY

Has no steel or leather bands. Rupture-Easer is comfortable and sanitary. It can be washed without harm to the fabric. You never offend when you wear Rupture-Easer.

EASY TO ORDER

Just measure around the lowest part of the abdomen and state right or left side or double.

30 DAY TRIAL OFFER

Money-back guarantee. If you don't get relief, return postpaid in 30 days.

PIPER BRACE COMPANY, Dept. AMG76J
811 Wyandotte, Kansas City, Mo. 64105

Same strong, form-fitting washable support for reducible inguinal hernia, but with new pull-straps for easy, instant adjustment. Protective back flap . . . no laces. Snaps up in front. Adjustable leg strap. Soft, flat groin pad to close opening in inguinal canal. No steel or leather bands. Unexcelled for comfort. Invisible even under light clothing. Also used as an after-operation support. For men, women, children.

No steel or leather bands . . . Completely Washable
Get new wonderful relief NOW with Patented RUPTURE-EASER!

MAIL THIS HANDY COUPON TODAY

Delay May be Serious Order Now!

PIPER BRACE CO., Dept. AMG76J
811 Wyandotte, Kansas City, Mo. 64105

Please send ___ NEW, IMPROVED RUPTURE-EASERS by return mail.

Right Side ☐ $4.95
Left Side ☐ $4.95
Double ☐ $6.95

Measure around lowest part of my abdomen is _____ INCHES.

(NOTE: Be Sure to give Size & Side when ordering).

Enclosed is: ☐ Money Order ☐ Cash
☐ Check for $_____ ☐ Send C.O.D.
Enclose 25c Postage

Name _____

Address _____

City and State _____ Zip _____

3 COMPLETE FISHING OUTFITS
NATIONALLY ADVERTISED 1966 MODELS
2 LOADED TACKLE BOXES • 41 DEADLY LURES
411 Pcs.

FREE! If you order NOW! 2 LEAKPROOF FLOATING TACKLE BOXES

3 EXPERTLY BALANCED RODS AND REELS

SMOOTH POWERFUL

ARGOSY DIRECT DRIVE TROLLING REEL

EVERYTHING YOU NEED TO GO FISHING AT ONCE

28 pc. POPPING LURE SET

POWER ACTION BLACK MAGIC FIBRE-GLASS RODS

STRONGER THAN STEEL OR BAMBOO

SELECT QUALITY MONOFILAMENT LINE

GET ACQUAINTED OFFER

$12.95 DELUXE MODEL

MARK IV LEVELWIND CASTING REEL

FISH KNIFE with SHEATH

5 pc. DROPLINE FISHING OUTFIT

DIP NET

NEW! SUPER "88" AUTOMATIC DUAL DRAG SPINCAST REEL

PUSH BUTTON CASTING ANTI REVERSE NO BACKLASH

NEW!

4 FAMOUS TROUT FLIES

25 NATURAL BAIT LURES
SURE SHOT ACTION WITH SHRIMP, MINNOWS, GRASSHOPPERS, MAYFLIES, BUMBLEBEES, CRICKETS, LEECHES.

STAR DRAG Found only on best reels

EACH ROD BALANCED TO PERFECTION

FIELD TESTED LURES
Proven the Deadliest Dozen Yet

FAMOUS CRAFTY LURES
SELECTED FROM WORLDS MOST POPULAR ALL TIME FAVORITES

COMPLETE! NOTHING ELSE TO BUY!

SELECTED FOR YOU BY EXPERTS. This choice fish-getting tackle, used by experts, contains nationally famous brands. Each item carefully chosen—everything you need for all types of fishing. Deadly lures that are all time favorites. A veteran angler or an occasional fisherman can be proud of this precision-built kit. You can go fishing at once. Compare! You will not find a bargain like this anywhere.

LOOK! YOU GET EVERYTHING SHOWN. Super "88" Spincast Reel • Comet X3C Bait Cast Reel • Argosy Direct Drive Trolling Reel • 5 ft. 2 pc. Fiber Glass Spin Cast Rod • 4 ft. Fiber Glass Bait Cast Rod • 3½ ft. Fiber Glass Trolling Rod • 9 ft. 3 section Bamboo Pole and 25 ft. Bank Line • 41 proven Deadly Lures • 5 pc. Furnished Line • 2 Floating Tackle Boxes with removable trays • Fish Knife and Sheath • 28 pc. Popping Lure Kit • Dip Net, Stringer, Split Shot, Clincher Sinkers, Snap Swivels, Assorted Hooks, Snelled Hooks, Cork Bobbers, Popper Corks, and complete instructions. 411 pieces in all.

NIRESK DISCOUNT SALES A DIVISION OF NIRESK IND. **CHICAGO 6**

MONEY BACK GUARANTEE!

NIRESK DISCOUNT SALES • Chicago 60606 Dept. FA 35

ORDER TODAY! If you're not 100% pleased we'll refund your full purchase price promptly.

YOU KEEP 2 FREE TACKLE BOXES REGARDLESS!

Please rush ____ 411 pcs. 3 Complete Fishing Sets

NAME_____

ADDRESS_____

CITY_____ ZONE____ STATE_____

☐ I enclose $12.95 plus $1.00 for postage & handling.
☐ Ship C.O.D. I will pay C.O.D. charges & postage.

To Canada: $14.95 including Postage & Duty